ABSTRACT BOOK

24th INTERNATIONAL MEDICAL SCIENCES STUDENT CONGRESS

17-18 MAY 2014

24. Uluslararası Tıp Bilimleri Öğrenci Kongresi
24th International Medical Sciences Students Congress Abstract Book

Yayın – Tasarım / Design – Layout: Kadir Emre Yakışık
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About;

Dear Students,

The first and original medical faculty of Turkey, Istanbul Medical Faculty is proud to host the 24th International Medical Sciences Student Congress (24th IMSSC).

Turkey is a scientific bridge between two continents and this event will be a unique opportunity to merge the scientific contribution of more than 20 countries, in Istanbul.

The aim of the congress is to promote education, research, and social networking between its participants. The first task of this congress is to present the research projects conducted by the medical students.

One of the important conditions to become a global university is to propagate research among students. This aim can also be fulfilled with this unique event.

Student Scientific Research Club (ÖBAK) is also to be congratulated on organizing such a high level scientific activity.

Again, I welcome you all to the congress and wish you to enjoy also, the historical and natural beauties of Istanbul.

Prof. Dr. M. Bilgin Saydam

Dean of Istanbul Medical Faculty

Dear Colleagues,

It is my pleasure to host you in Istanbul for the 24th IMSSC. More than 35 countries are participating in this International Congress with more than 130 scientific article applications from all over the World. The best presentations constituted the scientific programme of the Congress. Altogether 42 presentations were found outstanding with 13 from the hosting Country.

We anticipate a total of 300 participants to the congress.

We believe that these congresses play an important role in international collaboration among students both socially and scientifically. It may be a means to promote positive thinking and scientific attitude among young people. Furthermore, these congresses provide an insight and a third dimension into the medical education.

We hope a fruitful congress to all the students.

Regards

Feyza Darendeliler

Vice Dean

I.U. Istanbul Faculty of Medicine

Dear Students,

The IMSSC, which debuted in 1986 and became a biennial event in 2006, shall take place this year on May 17-19 in Istanbul.

Istanbul, being a connection between Asia and Europe, has been a scene where the scientific heritage and all fine arts of the orient and the occident have interwined, yielding what still feeds us today and inspires us for further development. Istanbul Faculty of Medicine, a product of the aforementioned interaction, is doing its part by organizing the IMSSC, which back in 1986 was the first student congress of medical sciences, for the 24th time.

Our congress draws a substantial audience from around the globe and provides a setting for medical students to share their work, gain knowledge and experience and socialize with their colleagues-to-be.

As the advisor for this congress, it gives me great joy to invite you on behalf of the SSRC to come join us this spring.

With Best Regards,

Prof. Dr. Tevfik Ecder
Faculty Advisor of Congress Organization Committee

Istanbul University, Istanbul Medical Faculty,
Department of Internal Medicine, Division of Nephrology

Dear Colleagues,

We would like to welcome you warmly to our International Medical Sciences Student Congress (IMSSC), which is held for the 24th time this year. As Student Scientific Research Club (SSRC), we have been hosting this traditional event since 1984 and we are once again proud to present you with our hard work.

Our congress is old, but our motives for hosting this congress were kept young. We dreamed of having a rich scientific atmosphere, with people from all around the world sharing their knowledge, opinions and culture. With your support we are able to present you with one of the greatest congresses in IMSSC history. This year we host more than 300 participants from 35 countries with more than 40 oral presentations. We hope every attendant of our congress will benefit from our rich scientific program and from the work of our presenters.

Like Bernard Shaw said; “Imagination is the beginning of creation. You imagine what you desire, you will what you imagine and at last you create what you will.” Our imagination started back in 1984 and in each congress we built our imagination yet further and further until we achieved this year’s congress. Each member of our organization committee dedicated his/her will and imagination to create this marvelous event and we are sure that this light of imagination will grow and lead the future work of SSRC as well.

We would like to thank our many supporters who helped during the creation of our congress and also we would like to thank you for participating and sharing this atmosphere with us. We hope our imagination can support your creation.

Once again we would like to welcome you all!

Sincerely yours,

24th IMSSC Organization Committee

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Special Thanks

Prof. Dr. Bilgin Saydam
Prof. Dr. Feyza Darendeliler
Prof. Dr. Ateş Kadıoğlu

24th International Medical Sciences Students' Congress of Turkey

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www.istanbul.edu.tr/obak

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www.imsscistanbul.com

SSRC-ÖBAK

Student Scientific Research Club (SSRC)

Öğrenci Bilimsel Araştırma Kulübü (ÖBAK)

SSRC works as a part of Istanbul School of Medicine and is a spot where students interested in research gather and share their experiences.

It has been founded in 1984 as a part of the Institute for Experimental Research in Medicine (DETAE) and again in 1984 it has organized the first IMSSC.

Our members attend the educational seminars of our faculty professors organized by the club. With the experiences SSRC provides, by attending the seminars and involving in projects, our members have a chance to graduate as better physicians and especially better researchers. Each year, the club offers a basic training in how research should be conducted, after which the students can work to accept or reject pre-written hypotheses. After mastering the basics of scientific methodology, students can form or join smaller groups that work on specific fields of interest. At the beginning of each academic year, after going through the aforementioned basic training, new members also join the specific interest groups referred to above, in which they receive the preliminary information from the head of the group. Thus, the students find a chance to learn very much very fast and partake in a research that is already in progress.

SSRC aims to:

- Host didactic events, seminars for newcomers
- To have young researchers gain experience before graduation
- To follow the latest developments in medicine and if possible, add more to them
- Organize IMSSC's, where studies conducted during the year can be presented and evaluated internationally

Istanbul University

The foundation of Istanbul University dates back to 1453, which puts it among the ten oldest universities in Europe. Its academic staff numbers up to five thousand people and it offers education to 55.000 students. It is the oldest university in Turkey and it consists of 17 schools, 16 institutes, 6 collegiate schools, 6 of what in Turkish is called “occupational schools” and 24 centers for applications and research.

Istanbul Faculty of Medicine

Our school has raised the frontiers in medical sciences in our country and has its name mentioned with nothing but praise when healtcare is concerned. I.S.M. physicians are known for their adequacy in basic science upon which they have built exceptional levels of clinical skills. Thus, they have the ability to create the solutions needed at all levels to the health problems the society and the individuals face. It continues to operate with about 500 instructors (professors & associate professors) 600 residents & specialist and 2000 other workers such as nurses and handymen.

Our school organizes seminars for doctors, scientific meetings and congresses and thus provides residents,students & doctos with the opportunity to ingest the revelant up to date information and with its superb academic staff, retains the high view that scientists all around the world have held of it for decades now.

With 1764 beds, our teaching hospital is possibly the largest in the whole country. Each department and each division is considered among the best within our borders in its field.

I.S.M. with a strong feeling of responsiblity towards Turkish nation, an everlasting motivation to improve science and provide the highest possible quality of care, is sure to continue the outstanding physicians of Turkey.

Registration Information

Congress registration will take place on May 17th, from 08.00 to 11.00. Registration will be available between these hours. Onsite registration, for whom hasn't been registered before, will be available only for scientific programme.

Certificate of Attendance

All regular attendants of the congress can collect their certificate of attendance at the Registration desk located at the second floor of '14 Mart Conference Hall' starting May 19th, from 15.00 to 17.00 .

Language of the Congress

The official language of the congress is English. Simultaneous translation to Turkish will be provided. Headphones can be provided from the desk near the conference hall entrance.

Programme Changes

The scientific committee can not assume liability for changes in the programme due to external or unforeseen circumstances.

Breakfast & Lunch

Sandwiches with juice will be given to members of the congress in 14 Mart Conference Hall.

For All Congress Members

Session and lunch times may vary each day. Congress members are requested to check timings from the abstract book and programme.

Active Presenters

Presentation day: Saturday ST..

Sunday SN..

Monday MN..

Presentation form: Oral ..O..

Case Report ..C..

Poster ..P..

Presentation number: ...1

For example: presentation day; Saturday

Presentation form; Oral *Abstract Number*: **STO22**

Presentation no.; 22

Oral Presenters

Presenters are allowed 10 minutes for each presentation and additional 2 minutes for questions and answers. Presenters should be at the conference hall when their session begins and remain until the session ends.

All presenters should bring their presentations to the scientific desk after their registration. The presentation delivery deadline for presenters which take part on May 17th morning is 11.00.

Poster Presenters

Poster area is located on the 2nd floor of '14 Mart Conference Hall'. Poster presentations will take place from Sunday May 18th 10.30 to Monday May 19th 15.30. Each poster board will be marked with the abstract number. Poster removal time is May 19th, 15.30.

In case something happens to your poster we do not take any responsibility, the presenters are responsible for their own posters.

Awards

500 $ Best oral presentation
200 $ 2nd best oral presentation
300 $ Best poster presentation

Jury

All abstract submissions were reviewed and evaluated for acceptance and prizes before the congress. During oral presentations, chairperson(s) of each session will evaluate the presentations. In addition, two members of scientific committee will also attend the presentations and grade your work. Sufficient slide content with tables, graphs, visuals, usage of time, brief but detailed explanation of the study, satisfactory answers to audience questions will be important factors affecting your score.

Poster presentations will be evaluated in poster presentation sessions which will be held on 18th and 19th of May. For the presenters, who cannot attend poster presentation sessions, scientific desk should be informed in order to arrange new evaluation time. It is important that the poster is well designed with sufficient information and visuals and the presenter can answer the questions directed to him/her.

SCIENTIFIC PROGRAMME

17 MAY 2014 - SATURDAY		
08.00 - 09.00	**BREAKFAST - REGISTRATION**	
09.00 -10.00	**OPENING CEREMONY**	
10.00 - 11.00	**LECTURE - I** Médecins Sans Frontières - Apostolos VEIZIS	
11.00 - 11.15	BREAK-1	
11.15 - 12.15	**ORAL PRESENTATION SESSION - 1 INTERNAL MEDICINE**	
10 MIN	STO1	Clinical Outcomes and Quality of Life in Patients After Surgical and Transcatheter Aortic Valve Replacement *Agata Krawczyk - POLAND*
10 MIN	STO2	TMLR, Hope for End Stage Patients with Coronary Artery Disease *Magdalena Bryndza - POLAND*
10 MIN	STO3	Screening Spirometry to Detect Respiratory Impairments: Population-based Study Olsztyn, Poland *Anna Romazsko - POLAND*
10 MIN	STO4	Characteristics of Patients with Acute Myocardial Infarction with ST Segment Elevation Treated with Primary Percutaneous Coronary Intervention in 2000-2002 and 2010-2012 *Edita Pigčková - SLOVAKIA*
10 MIN	STO5	Blood Group Distribution of ABO and Rhesus Blood Group System in the Macedonian and Albanian Population in the Republic of Macedonia *Zorica Tashkova - MACEDONIA*
10 MIN	SNC01	Improved Treatment and Management of Sickle Cell Anemia *Olugbenga Tunji Ajuwon - NIGERIA*
12.15 - 13.15	***LUNCH BREAK***	
13.15 - 14.00	**ORAL PRESENTATION SESSION - 2 PEDIATRICS**	
10 MIN	STO6	Chromosomal Abnormalities in Fetuses with Abnormal Heart Image in Prenatal Screening *Katarzyna Paczkowska - POLAND*
10 MIN	STO7	The Incidence and Leading Causes of Early Neonatal Death in Tuzla Canton, Bosnia and Herzegovina *Asja Muratovic - BOSNIA AND HERZEGOVINA*
10 MIN	STO8	Is It Necessary to Diagnose Lipid Disorders in Patients at the Time of Diagnosis of Type 1 Diabetes Mellitus? *Katarzyna Pasternak - POLAND*
10 MIN	STC02	Clinical Manifestation of Monogenic Human Obesity Syndromes–Multiple Case Study Analysis *Dorota Fros - POLAND*
14.00 - 14.15	BREAK - 2	
14.15 - 15.15	**LECTURE - II** Prof.Dr.Erbuğ KESKİN - Brain Washed by Testosterone	
15.15 - 15.30	BREAK-3	
15.30 - 17.00	**WORKSHOPS - I**	
	STW -1	Prof.Dr. Enver DAYIOĞLU - Dr. Ömer Ali SAYIN
	STW -2	Assoc. Prof. Dr. Ayşin ÇETİNER KALE - Assoc. Prof. Dr. Fatih Dikici

	STW -3	MEDICAL TOURISM
	STW -4	Prof. Dr. Tevfik ECDER - Clinical Approach to Acid - Base Disorders
	STW -5	BIOMIMICRY
18 MAY 2014 - SUNDAY		
09.00 - 10.50	**LECTURE - III** Prof. Dr. Umut BARBAROS Modern Techniques on Surgery: Cholecystectomy (LIVE OPERATION)	
10.50 - 11.00	BREAK - 4	
11.00 - 12.00	**ORAL PRESENTATION SESSION - 3 SURGICAL SCIENCES**	
10 MIN	SNO9	Comparison of Total Arterial Myocardial Revascularization and Arterial-Venous Myocardial Revascularization in patients over 70 years old. *Anna Kedziora - POLAND*
10 MIN	SNO10	Study of Carotid Endarterectomy Surgical Complications *Ehsanolah Ghorbanian - IRAN*
10 MIN	SNO11	Our Results of Surgical in the Hepatocellular Adenomas *Fatih Sağ - TURKEY*
10 MIN	SNO12	The Quantitative Assessment of Hepatic Arterial Reconstruction in Living Donor Liver Transplantation *Sema Bağhaki - TURKEY*
10 MIN	SNO13	Does the Postoperative Troponin I Blood Concentration Measured in Perioperative Period Influence Hemodynamic Function of a Transplanted Heart? *Krzysztof Sojecki- POLAND*
10 MIN	SNO14	Significance of First Post-operative Bronchoscopic View Visual Evaluation in Predicting Outcomes and Need of Additional Surgical Intervention after Benign Laryngotracheal and Tracheal Stenosis Resection *Lukas Andrius Jeliseievas - LITHUANIA*
12.00 - 13.00	***LUNCH BREAK***	
13.00 - 14.00	**POSTER PRESENTATIONS - 1**	
14.00 - 14.50	**LECTURE - IV** Dr.Yavuz DİZDAR	
14.50-15.00	BREAK - 5	
15.00-15.50	**ORAL PRESENTATION SESSION - 4 INTERNAL MEDICINE**	
10 MIN	SNO15	Mortality Risk Factors for Hospitalized Patients with Community Acquired Pneumonia *Ginta Vasiljeva - LATVIA*
10 MIN	SNO16	MR Imaging Changes after Stereotactic Radiation for Brain Metastases in a Single-Institution Cohort *Kübra Gökçe- TURKEY*
10 MIN	SNO17	Comparison of ABVD and BEACOPP as the First-line Chemotherapy Regimens in Hodgkin Lymphoma and Indications for Treatment Escalation- A Single-center Retrospective Cohort Study *Pawel Kozlik - POLAND*

10 MIN	SNO18	Demographic and Clinical Characteristics of Patients with Autosomal Dominant Polycystic Kidney Diseases in Istanbul Faculty of Medicine *Büşra Ekin - TURKEY*
10 MIN	SNO19	Total Cerebral Volume Measurement: A New Approach *Ozan Cengiz - TURKEY*
15.50 - 16.00	BREAK - 6	
16.00 - 17.00	**WORKSHOPS - II**	
	SNW -6	PROF. DR. Yağız ÜRESİN - TRANSLATIONAL RESEARCH
	SNW -7	PROF. DR. Doğan ŞAHİN
	SNW -8	CYBERKNIFE
	SNW -9	PROF. DR. Şebnem KORUR FİNCANCI
19 MAY 2014 - MONDAY		
9.00 - 10.00	**POSTER PRESENTATIONS - 2**	
10.00 - 10.50	**LECTURE V**	
10.50 - 11.00	BREAK - 7	
11.00 - 12.15	**ORAL PRESENTATION SESSION - 5 BASIC SCIENCES**	
10 MIN	MNO20	Investigation of the Presence of MecA Genes in Coagulase-negative Staphylococci by PCR Method *Seifu Ahmed Ibrahim - ETHIOPIA*
10 MIN	MNO21	Role of Human Milk Derived Oligosaccharides in Vascular Inflammation, Atherosclerosis and Thrombosis *Ayşe Ceren Tanrıtanır - TURKEY*
10 MIN	MNO22	The Anatomy of the Distal Clavicle in a Kenyan Population *Beryl Ominde -KENYA*
10 MIN	MNO23	Neutrophil Extracellular Traps(NETs) Kill Bacteria /The Relationship Between Major Blunt Trauma *Burak İşal - TURKEY*
10 MIN	MNO24	TDM of Cyclosporine Concentrations in Adults and Children Recipients after Liver Transplantation *Karina Blagoeva - BULGARIA*
10 MIN	MNO25	Vasa vasorum of the Porcine Coronary Arteries *Matej Patzelt - CZECH REPUBLIK*
10 MIN	MNO26	ARNTL2 Gene Expressions in Autism Spectrum Disorders *Mustafa Şahin - TURKEY*
10 MIN	MNO34	TRANSCRIPTION ACTIVATOR-LIKE EFFECTOR NUCLEASE(TALEN) MEDIATED SITE-SPECIFIC GENOME MODIFICATION OF INDUCED PLURIPOTENT STEM CELLS(iPSCs) *Zübeyr Kavcar - TURKEY*
12.15 - 13.15	***LUNCH BREAK***	
13.15 - 14.30	**ORAL PRESENTATION SESSION - 6 PUBLIC HEALTH**	

10 MIN	MNO27	Prevalence of Dementia in Coincidencial Individs of Group Age 50-90 *Vesna Zlatkova - MACEDONIA*
10 MIN	MNO28	Pineal Region Tumors: A 10-year Experience in Iran *Amin Mohamadi - IRAN*
10 MIN	MNO29	Improving the Access to Health Care of Migrant Communities Living in Hungarian Reception Centers *Erika Marek - HUNGARY*
10 MIN	MNO30	Allergic Rhinitis and Related Risk Factors Among 12-18 Year Students in Northeast of Iran *Hamid Reza Tolide-ie - IRAN*
10 MIN	MNO31	Analysis of The Perinatal Care Quality Indicators in Wielkopolska Region *Natalia Podkowa - POLAND*
10 MIN	MNO32	Fluctuation in Medical Students' Grades: Impasse of Medical Students' Evaluation *Najva Mazhari- IRAN*
10 MIN	MNO33	Prevalence of Chronic Injuries in Georgian Dancers *Tsotne Dadiani/David Gurgenidze - GEORGIA*
14.30 - 14.45	BREAK - 8	
14.45 - 15.45	**LECTURE - VI** Beril KOPARAL AYANOĞLU MEDICINE FROM DIFFERENT PERSPECTIVES	
15.45 - 16.00	BREAK - 9	
16.00-17.00	**ISTANBUL FACULTY OF MEDICINE** **CVS - GENERAL SURGERY - INTERNAL MEDICINE CASE REPORTS**	
10 MIN	MNC03	Transarterial Embolization Treatment of Inferior Epigastric Artery Injury Caused by Port Entrance After Laparoscopic Cholecystectomy *Elif Uysal-TURKEY*
10 MIN	MNC04	Single Ventricle Physiology with Hypoplastic Right Ventricle: A Medical Case Report *Dilara Çelik - TURKEY*
10 MIN	MNC05	Coronary Artery By-Pass Surgery with CABGx7 *Zeynep Türkoğlu - TURKEY*
10 MIN	MNC06	A DiGeorge Syndrome Case with an Aortic Arch Anomaly *Meriç Vatansever - TURKEY*
10 MIN	MNC07	A Medical Case of Iron Deficiency Anemia *Rana Berru Durmuş -TURKEY*
10 MIN	MNC08	CHEMOTHERAPY APPROACH TO LUNG CANCER TREATMENT *Ecem Bostan - TURKEY*
17.00 - 18.00	**CLOSING CEREMONY**	

ORAL PRESENTATIONS

May 17th, Saturday
11.15-12.15

Session 1

INTERNAL MEDICINE/SESSION-I

Chairperson: Prof.Dr. Tevfik Ecder

ORAL PRESENTATION SESSION - 1 INTERNAL MEDICINE STO01

CLINICAL OUTCOMES AND QUALITY OF LIFE IN PATIENTS AFTER SURGICAL AND TRANSCATHETER AORTIC VALVE REPLACEMENT

Agata Krawczyk, Tomasz Tokarek, Grzegorz Dębski, Krystian Gruszka, Joanna Rutka, Ewa Zawadzka, Krzysztof Bryniarski, Anna Kędziora, Anna Żabówka

2nd Department of Cardiology and Cardiovascular Interventions Jagiellonian University Medical College in Kraków, Poland

OBJECTIVE

The aim of this study analysis was to evaluate long-term results and quality of life in patients with diagnosed AS and treated with TAVI or minimally invasive (mini-sternotomy) aortic valve replacement.

MATERIAL & METHOD

The study group consisted of 156 patients with symptomatic severe AS enrolled from 2011 to 2013. After assessment by multidisciplinary Heart Team patients were allocated to 3 types of aortic valve replacement. Long-term results and quality of life was assessed by Minnesota Living with Heart Failure Questionnairs and EQ-D5 with additional 3 questions designed by our research group. Patients were asked to assess their well-being perioperatively 12 and 24 months after aortic valve replacement. All patients were operated by the same team of either cardiac surgeons (SAVR, MIAVR) or interventional cardiologists with cardiac surgeons (TAVI).

RESULTS

TAVI group consisted of 21 patients (32%) and mini-sternotomy was performed in 45 patients (68%). Median follow-up was 967,5 (IQR:738-1116) days. Previous PCI (28,57% vs 11,36%, p=0,24), CABG (14,29% vs 2,27%, p=0,16), myocardial infarction (15,0% vs 13,64%, p=0,06) were equally distributed and peripheral artery angioplasty (19,5% vs 0,0%, p=0,01) was more often reported in TAVI group in comparison to mini-sternotomy. Patients enrolled to TAVI group were significantly older than in mini–sternotomy group (median 83 years, IQR 73-81,5 vs 67 years, IQR 57-77; p= 0,00018). Similar EUROSCORE was reported in both groups (median 9 points, IQR 7-11 vs 4 points, IQR 2-6; p=0,83 for TAVI vs mini-sternotomy). Patients treated with TAVI presented similar in-hospital mortality (4,76% vs 2,27%, p=0,84) and mortality after discharge from hospital (4,76% vs 4,55%, p=0,97). Perioperatively mini-sternotomy patients in comparison with TAVI group reported more often problems with: mobility (47,0% vs 5,5%, p= p=0,0022), self – care (51,4% vs 11,1%, p= 0,00414), usual activity (55,5% vs 16,6%, p= 0,02), pain and discomfort (52,7% vs 5,5%, p=0,00071). Anxiety or depression were reported at a similar level (44,4% vs 22,2%, p=0,24). The scoring of subjective assessment of perioperative health status in 10 points scale was reported similar in TAVI and mini-sternotomy group (>5 points, 75% vs 65,7%, p=0,47). Perioperative subjective improvement of health status in comparison with pre-operative period was similar in TAVI and mini-sternotomy group (84% vs 81%, p=0,80). In 12 months observation problems with: mobility (26,5 vs 9,1%, p=0,23), usual activity (26,5 vs 18,2%, p=0,57), pain and discomfort (32,4% vs 18,%, p=0,36), self-care (8,8% vs 9,1%, p=0,97) and anxiety or depression (36,4% vs 14,7%, p=0,12) were reported similar in mini-sternotomy and TAVI group. However, the scoring of subjective assessment of health status in 10 points scale was higher in mini-sternotomy group in comparison with TAVI (>5 points, 94% vs 60%, p=0,0057). Subjective improvement of health status 12 months after procedure in comparison with pre-operative period was similar in TAVI and mini-sternotomy group (100% vs 91%, p=0,31).

CONCLUSION

Patient allocated to TAVI are older with multiple comorbidities and at high risk of major complications. Transcatheter aortic valve implantation improves quality of life in perioperative and 12 month observation in comparsion with mini-sternotomy.

KEYWORDS

TAVI, minimally invasive (mini-sternotomy) aortic valve replacement,

TMLR, HOPE FOR ENDSTAGE PATIENTS WITH CORONARY ARTERY DISEASE

Anna Kędziora, Sabina Lichołai, Katarzyna Moczała, Magdalena Bryndza
Cardiac Students Scientific Group,Department of Cardiac and Vascular Surgery and Transplantology, John Paul II Hospital, Kraków, Poland

OBJECTIVE

Transmyocardial laser revascularization is an indirect method of chronic CAD treatment. Many authors underline benefits from TMLR as an additional procedure for patients in whom complete revascularization is not reachable. Channels created by the laser stimulate inflammation, which results in TMLR-related neoangiogenesis and cardiac denervation.

MATERIAL & METHOD

The study was based on the group of 95 patients. Clinical data were obtained from medical records. All the patients were followed up with EQ-5D scale.

RESULTS

In 11 cases (11.6%) patients were not amenable for any direct revascularization and only TMLR was applied. Perioperative mortality was established at the level of 7.4%, while long-term observation revealed mortality at the level of 13.3%, with 50% rate of cardiac associated deaths. MACE-free rate during 10 to 15 years follow-up period amounts 63.3%. General incidence of MI after the procedure accounted for 34.5%. The improvement of the quality of life ascertained by patients was observed in all cases. During statistical analysis we divided patients into two groups based on whether LAD grafting was (56.7%) or was not (43.3%) performed. In 23.5% cases with LAD grafting TMLR was also applied to the anterior myocardium. Even though relative improvement of the quality of life assessed by the EQ-5D scale is higher in patients without LAD grafting (42.5 vs. 37.25), it was not statistically significant ($p=0.215$). Patients who received LAD bypass graft benefited with lower MI incidence and mortality in long-term follow-up.

CONCLUSION

This study indicates a significant effect on angina relief in patients, who received TMLR, measured by the EQ-5D scale. We believe that in patients with end-stage CAD TMLR should be applied as an additional procedure to direct revascularization. Beneficial influence of this combined procedure was confirmed by diminished incidence of MI and death in the long-term follow-up.

KEYWORDS: TMLR, endstage CAD

ORAL PRESENTATION SESSION - 1 INTERNAL MEDICINE STO03

SCREENING SPIROMETRY TO DETECT RESPIRATORY IMPAIRMENTS: POPULATION-BASED STUDY OLSZTYN, POLAND

A.Romaszko, P. Szpruch, J. Haraźna, E. Świetlik, J. Pawlak, E. Bałdyga, M. Kolis, W. Lipińska, J. Luks, M. Orylska, A. Doboszyńska

Pulmonology Clinic, Faculty of Medical Sciences, University of Warmia and Mazury in Olsztyn, Poland

OBJECTIVE

According to data covering the years 2009–2010, the death rate from respiratory diseases in the region of Warmia and Mazury in Poland is higher than that in the other regions of Poland. As many as 40% deaths from respiratory diseases in the Warmińsko-Mazurskie Province is due to respiratory failure, while the percentage in Poland overall is only 5.5%. Aim of this study was detection deviations in spirometry in a randomly selected population of the city of Olsztyn

MATERIAL & METHOD

We used Microlab Viasys spirometers. All the volunteers completed a questionnaire. Participation in the study was entirely voluntary and unpaid.

RESULTS

We examined 213 subjects (131 women, 82 men), airway obstruction was found in 35 subjects (21 women, 14 men) aged 63±10 years, the spirometry was normal in 178 subjects (110 women, 68 men) aged 56±15 years. A total of 161 records were evaluable. The mean: age of the subjects was 57 (SD 14.67) years, height was 1.67 m (SD 0.09), body mass was 75 kg (SD 16.30), BMI was 26.84 kg/m2 (SD 5.06), duration of smoking was 13 years (SD 16.15) and number of cigarettes smoked per day was 16 (SD 12.47). The mean values of the following parameters were as follows: FEV1 2.74 dm3/s (SD 0.93), FEV1 97.72% (SD 18.46), FVC 3.51 dm3/s (SD 1.11), FVC 103.84% (SD 18.98) and FEV1/FVC 0.78 (SD 0.09).

CONCLUSION

1. The percentage of subjects with airway obstruction was 16.43%. These subjects require further evaluation for COPD or asthma. This finding has confirmed the frequent occurrence of respiratory diseases, emphasising the need for health education and awareness campaigns about the detrimental effects of smoking.
2. The following statistically significant ($p<0.05$) correlations have been demonstrated:
   a. A negative correlation for FEV1/FVC and age in the entire study population, without sex-related differences.
   b. A positive correlation for BMI and FEV1/FVC in women. This correlation is most likely associated with the different distribution of the adipose tissue in women and men.
   c. A negative correlation for FEV1/FVC and age in men.
3. A statistically significant correlation between the location of windows and FVC values has been observed. We took into account the prevailing location of the windows in the subject's home relative to the street.

KEYWORDS

spirometry, respiratory impairments, pulmonary obstruction

CHARACTERISTICS OF PATIENTS WITH ACUTE MYOCARDIAL INFARCTION WITH ST SEGMENT ELEVATION TREATED WITH PRIMARY PERCUTANEOUS CORONARY INTERVENTION IN 2000-2002 AND 2010-2012

Edita Piačková
3rd Internal-Cardiology Clinic, Royal Vinohrady Teaching Hospital, Prague

MATERIAL & METHOD

A retrospective analysis of patients, where patient's data were from the database of FNKV (Royal Vinohrady Teaching hospital) and mortality data from the ČSÚ (Czech statistical office). Patients were monitored from the first day of hospitalization until the 10th day.

RESULTS

In 2000-2002, was for STEMI hospitalized 960 patients and in 2010-2012 710 patients in 3rd internal-cardiology clinic. Between these two groups was no difference in age , but the difference between gender representation was clear (women 34.6 % in 2000-2002 vs. 28.5 % in 2010-2012 p = 0.007). Among men, there was no difference in age in both periods; women were older in 2000-2002. In the 2000-2002 period, patients had more often a history of previous acute myocardial infarction, history of previous revascularization (PCI or coronary artery bypass) had, on the contrary, patients with STEMI in 2010-2012. Representation of DM patients in both groups was the same. Hemodynamic status of patients admitted with STEMI in 2000-2002 was worse than that by patients in 2010-2012. Also, the extent of coronary infliction was worse in patients hospitalized in 2000-2002. Success of pPCI jugged by flow in coronary artery after the procedure was the same in both groups.

CONCLUSION

STEMI patients treated with pPCI in 2000-2002 had more risk characteristics.

KEYWORDS

STEMI, pPCI, retrospective analysis

BLOOD GROUP DISTRIBUTION OF ABO AND RHESUS BLOOD GROUP SYSTEM IN THE MACEDONIAN AND ALBANIAN POPULATION IN THE REPUBLIC OF MACEDONIA

Kostovski M, TASHKOVA Z, Vasileva A; Institute of Transfuzion Medicine

OBJECTIVE

The aim of our study was to investigate blood group distribution (ABO,RhD) in major ethnic groups in the Republic of Macedonia (Macedonian and Albanian population), because of the very little knowledge about the blood group distribution in our country population.

MATERIAL & METHOD

The study is single centre, randomized with a retrospective character. A database with a total number of 1547 randomly chosen patients of both genders was studied. They were further classified according to their ethnicity into Macedonians and Albanians. Their blood group (ABO, RhD) was determined using standardized immunohaematological procedure (gel cards technique).

RESULTS

From our study for the Macedonian population the percentage frequency of blood group A was highest-(43,54%), followed by blood group O-(32,63%), and B-(16,18%). Least percentage of frequency was found in blood group AB-(7,64%). For the Albanian population most common blood group was blood group A-(38,92%), then blood group O-(32,66%), followed by blood group B-(16,78). Least percentage of frequency was found in blood group AB-(11,64%). According to the the Rhesus system (RhD) analysis, the Macedonian population showed highest frequency distribution of Rh (D) positive with 88,18% which was similar with the Albanian population with frequency distribution of 89,26%. Rh (D) negative showed least frequency distribution in both, the Macedonian and Albanian population with 11,08% and 10,74% respectively. The results of ABO and Rh (D) blood groups together showed the highest frequency of the blood group A positive in both populations with 38,45% and 34,45%, respectively. The blood group AB negative-(1,09%) was the least frequent in the Macedonian population, while the blood group B negative-(0,45%) was noted as the least frequent in the Albanian population.

CONCLUSION

We can conclude that blood group A positive is most frequent in both the Macedonian and the Albanian population. Blood group AB negative is less frequent in the Macedonians, while blood group B negative has lowest frequency in the Albanians. The benefit of such studies have high-value in understanding the distribution of different blood group systems in specific regions of a country, population or ethnicity, therefore it is very important not only for transfusion medicine, anthropology, genetics, general medicine, blood banks, blood donations in emergencies, clinical investigation studies, but, also very important for investigation of a population group or ethnicity.

KEYWORDS: Ethnic groups, blood groups, frequency, distribution

ORAL PRESENTATION SESSION - 1 INTERNAL MEDICINE STC01

IMPROVED TREATMENT AND MANAGEMENT OF SICKLE CELL ANEMIA (NIGERIA CASE STUDY)

Ajuwon Olugbenga Tunji , David Tvildiani Medical University, AIETI Medical School), Tblisi Georgia

OBJECTIVE

Sickle cell disorder is by far the commonest inherited disorder in the world and three quarters of cases occur in Africa with Nigeria having the highest number of incidence for which about 2 % of all babies born to Nigerian parents having sickle cell anemia, however, this prevalence is only at birth and the numbers through childhood, adolescence and adulthood reduces progressively, of course for obvious reason(s). thus it is the aim of study to present an effective and wholesome approach in the control, treatment and management of major complications of sickle cell disease especially in a developing country like Nigeria with limited medical and health resources, taking note of the mortality rate, hospital admission rate as well as need for blood transfusion.

MATERIAL & METHOD

Patients with the Sickle cell disorder where referred from the General Hospital to the sickle cell center (Specialized Clinic for Sickle cell patients). Patients referred to the clinic were diagnosed and their status confirmed. Patients were initially assessed by the nurses and were further referred to Medical Officers on duty for necessary management. Afterwards parents/guardians as well as patients well duly counseled. Regular follow up counseling was done in a conducive and friendly atmosphere. They were taught regularly nutritional and health tips, particularly avoiding known triggers of sickle cell crisis, strict compliance to prescription, observing clinic appointments etc were emphasized. Drugs were administered and they were in the categories of routine drugs essentially supplementary drugs and likewise those given for the treatment of pain in the case of crisis as well as antibiotics.

RESULTS

Over the study period, from inception in May 2012 to November 2013, the data obtained were recorded and analyzed using the SPSS data analysis tool. Comparison was made between the years of the study period.

The records show that the number of patients gradually increased from 1,500 in 2012 to 2,200 in 2013. The ages of patients at recruitment ranged from 6 months to 70 years.

The number of admitted patient in hospital in 2012 was 1700, this is because some patients were admitted more than once, however this number reduced gradually and greatly over the study period to 200 in 2013. The admission period lasted within a range of 2 to 30 days which indeed reduced during the study period particularly for long admissions.

About 1000 patients required blood transfusion in 2012 with a total of 1,230 units of blood at an average of 1.23 units of blood per patient but this number reduced to about 300 of the 2200 patient that required blood transfusion with a total of 324 units of blood at an average of 1.08 units per patient

Similarly mortality rate during the study period showed a decline from 170 in 2012 (11.3%) to 21 in 2013 (1.4%)

CONCLUSION

The quality of life of people living with sickle cell anemia can be greatly improved by providing an organized wholesome care, thereby reducing incidence of sickness and death particularly in developing countries with limited medical and health resources.

KEYWORDS Sickle cell Disease, Sickle cell Anemia, Sickle cell Disorder, Mortality rate, Morbidity rate, Blood transfusion, Sickle cell Complications.

May 17th, Saturday
13.15-14.00

Session 2
PEDIATRICS

Chairpersons: *Prof. Dr. Rukiye Eker Ömeroğlu*

ORAL PRESENTATION SESSION - 2 PEDIATRICS STO06

CHROMOSOMAL ABNORMALITIES IN FETUSES WITH ABNORMAL HEART IMAGE IN PRENATAL SCREENING

Paczkowska Katarzyna, Podkowa Natalia, Gruca-Stryjak Karolina
Student Scientific Association of Perinatology and Gynecology, Poznan University of Medical Sciences, Poznan, Poland

OBJECTIVE

With an estimated prevalence of 4 to 50 per 1000 live births, congenital heart defects (CHDs) are the most common birth defects. Chromosomal abnormalities are a frequent cause of CHDs, especially when they are associated with the growth restriction, the other malformations, or dysmorphic features.
The aim of the study was to assess the incidence of the karyotype abnormalities among fetuses with abnormal cardiac ultrasound findings.

MATERIAL & METHOD

The retrospective analysis of karyotype abnormalities was carried out between January 2008 and March 2013 in the Department of Perinatology and Gynecology, Poznan University of Medical Sciences in the group of fetuses with abnormal heart image (n = 92) in prenatal screening. Out of the 92 patients 32 pregnant patients decided to perform karyotyping.

RESULTS

In fetuses with abnormal cardiac ultrasound findings, karyotyping revealed a chromosomal abnormality in 50% (16/32) of the cases. Classical autosomal aneuploidies (trisomy 21, 18 and 13) were the most frequent chromosomal abnormalities diagnosed in 43,8% (14/32) of the cases, followed by structural chromosomal rearrangements in 3,1% (1/32) of the cases and one triploidia (69,XXX) in 3,1% (1/32) of the patients. None sex chromosome aneuploidies (45,X or 47,XXX/46,XX) were diagnosed.

CONCLUSION

There is a high correlation between congenital heart defects and chromosomal abnormalities in prenatal life. These patients require multidisciplinary care. The genetic information is important giving the knowledge of fetal outcome and the risk of the reoccurrence.

KEYWORDS

Chromosomal abnormalities, congenital heart defects, ultrasound examination

ORAL PRESENTATION SESSION - 2 PEDIATRICS STO07

THE INCIDENCE AND LEADING CAUSES OF EARLY NEONATAL DEATH IN TUZLA CANTON, BOSNIA AND HERZEGOVINA

Muratovic Asja, Terzic Amar, Husic Azra, Avdic Aida, Gavranovic Mirza

University of Tuzla,Faculty of Medicine, Department for Gynecology and Obstetrics (Neonatal Unit),Tuzla University Hospital Center

OBJECTIVE

The main aim is to determinate the incidence and leading causes of early neonatal deaths during the period of ten years (2003-2013).

MATERIAL & METHOD

The data for this study were retrospectively collected from birth protocols of Neonatal Unit in Tuzla University Department for Gynecology and Obstetrics. The analysis included variables such as the numbers of live births, early neonatal deaths, causes of death, sex of infants, gestational age, weights at birth and ages in moment of death.

RESULTS

During the period of ten years (2003-2013) there were 46708 live births and 316 early neonatal deaths recorded. Early neonatal mortality rate was 6.7 /1000 live births.The early neonatal death (END) rate had decreased in period of ten years (7.8 to 4.4 /1000).Out of 316 early neonatal deaths,196 were male infants,24 % higher than the number of female infants (120),($p<0.0021$). According to gestational age, the highest early neonatal mortality rate (75%) was recorded in low birth weight infants (<2500 g).Most early neonatal deaths were noted within the first 24 hours of life (52.8 %), 24-72 hours (33.9 %), >72 hours (13,3%),($p<0.0001$).The most frequent cause of this death during the study period was prematurity, particularly in male infants with gestational age under 37 weeks and birth weight between 500 and 1500 grams. This cause of END is also a leading factor in female infants, but in significantly lower rates. Other common causes of death were congenital anomalies in 68 cases(21.5 %), hypoxia and trauma in 56

CONCLUSION

According to the decreasing trend in early neonatal mortality rate, the expected rate in year 2014 is 4.01/1000. Advancements in essential neonatal care, particularly for premature infants could lead to significant decrease in early neonatal mortality rate.

KEYWORDS: Early neonatal death (END)

ORAL PRESENTATION SESSION - 2 PEDIATRICS STO08

IS IT NECESSARY TO DIAGNOSE LIPID DISORDERS IN PATIENTS AT THE TIME OF DIAGNOSIS OF TYPE 1 DIABETES MELLITUS?

Agnieszka Kobyłka, Agata Krawczyk, Katarzyna Pasternak, Monika Wołek, Natalia Grzegorzak, Paweł Śpiewok, Students Scientific Group, Department of Pediatric and Adolescent Endocrinology Chair of Pediatrics, Polish-American Pediatric Institute Jagiellonian University Collegium Medicum

OBJECTIVE

An absolute deficiency of insulin in patients with type 1 diabetes mellitus (DM1) leads to free fatty acids release from fat cells and to synthesis of VLDL in the liver. Dyslipidemia can be increased by diabetic ketoacidosis present in some patients at the time of DM1 diagnosis. The aim of the paper was to assess usefulness of lipid profile examination for the further treatment and future prognosis in children at the time of DM1 diagnosis.

MATERIAL & METHOD

162 children (74 girls, 82 boys); the mean age 9,7 (0,4-17,94) years old. Because of the variety of reference ranges for total cholesterol (TC) and triglicerydes (TG) and the lack of them for HDL cholesterol (HDLc) as well as LDL cholesterol (LDLc) in 0-4 years old patients the group was divided into: 0-4 years (n=17, median age-2,46) and 5-18 years (n=145, median age-10,55).

In the first week after DM1 diagnosis, the lipid profile, blood pH, blood glucose level and HbA1c were checked. In patients with dyslipidemia, the tests were remade in the 2nd year of treatment. The correlation between concentration of particular lipids fractions and the blood sugar and HbA1c were determined; and for patients diagnosed with DM1 the blood pH was additional one.

RESULTS

In the group of 0-4 year old patients at the time of DM1 diagnosis dyslipidemia was present in 41,1% , during the checkup in 11%. The average concentration of TC and TG during the first examination and the checkup were respectively: TC 6,01 (2,97-6,79) vs. 4,17 (3,03-5,29), TG 2,81 (0,49-4,65) vs. 0,56 (0,45-1,68) mmol/l. In the group of 5-18 year old at the time of DM1 diagnosis dyslipidemia was present in 32% , during the checkup in 10%. The average concentration of lipids during the first examination and checkup was appropriately TC 4,24 (2,82- 7,46) vs. 4,48 (3,01-7,25); LDLc 2,58 (1,16-5,16) vs. 2,47 (1,25- 4,27); HDLc 1,26 (0,61- 2,49) vs. 1,63 (0,75-2,47); TG 0,99 (0,47- 3,71) vs. 0,73 (0,38-4,02) mmol/l. There was no significant correlation between the lipid concentration and parameters of metabolic equalization. None of the patients required a pharmacotherapy of lipid disorders.

CONCLUSION

In patients with newly diagnosed DM1 dyslipidemia occurs 3-4 times more than in the next years of life. Lipid disorders don't depend directly on blood pH, blood glucose level and HbA1c. Practical sense of the defining the risk of dyslipidemia and introducing treatment is a lipid panel assessment after gaining permanent metabolic normalization.

KEYWORDS diabetes, hyperlipidemia, lipid disorders

ORAL PRESENTATION SESSION - 2 PEDIATRICS STC02

CLINICAL MANIFESTATION OF MONOGENIC HUMAN OBESITY SYNDROMES - MULTIPLE CASE STUDY ANALYSIS

Dorota Fros, Agata Krawczyk, Katarzyna Pasternak, Monika Wolek

Jagiellonian University Medical College, Pediatric and Adolescent Endocrinology Department, Chair of Pediatrics, Krakow, Poland

OBJECTIVE

Only 3-5% of childhood obesity cases is caused by single gene mutation. However numerous monogenic human obesity syndromes (MHOS) have been described to date, early diagnosis is still challenging. Clinical manifestation consists of primary endocrine and non-endocrine disorders and obesity complications.

MATERIAL & METHOD

The aim of the work was to characterize clinical manifestation of human obesity syndroms. Medical records of nine patients with MHOS were analyzed.

The results: The age of the patients reported to the clinic, ranged from 5 months to 14 years. These patients were diagnosed with the following MHOS: Bardet-Biedl syndrome (3 patients, BB), Alström's syndrome (2 patients, ALS), Albright's syndrome (2 related patients, ALB), Madelung's syndrome (1 patient, M), morbid obesity associated with melanocortin receptor defect (1 patient, POMC).

In all cases early childhood obesity was present. Apart from the characteristic for individual syndromes phenotypic features, these obese patients were found to have the following: disorders of sense organs (eye and ear),concerning 5 of the subjects (2 with BB, 2 with ALS, and 1 with POMC), psychomotor retardation in 7 patients (3 with BB, 2 ALB, 1 M and 1 POMC), dysplidemia in 5 of the subjects (2 with BB, 2 with ALS, and 1 with M), including one case of severe hypertriglicerydemia (BB), arterial hypertension was detected among 3 of the subjects (2 with ALS and 1 with ALB), diabetes mellitus and non alcoholic fatty liver disease were diagnosed with both patients with Alström's syndrome, short stature was noted for 2 subjects (1 with M and 1 with ALB), hypothyroidism in 4 (for 1 of each with: M, ALB, POMC, and ALS), whereas Graves – Basedow disease in 1 subject (ALB), delayed puberty occured in patients with Alström's syndrome as well as in 2 patients with Bardet-Biedl syndrome. Aggravating family history for 3 of the children (two with ALB and 1 with ALS).

CONCLUSION

In each case of early onset of obesity with or without concomitant dimorphic features and/or disorders of sense organs, psychomotor retardation MHOS should be considered. Patients with MHOS seem to present increased risk of various endocrinopathies, however further investigations in larger groups are needed to confirm that.

KEYWORDS

MHOS, Bardet - Biedl Syndrom, Albright's Syndrom, Alström's Syndrom, Madelung's Syndrom, POMC, Obesity, Endocine Disorders

May 18th, Sunday
11.00-12.00

Session 3
SURGICAL SCIENCES

Chairperson: Prof.Dr. Umut Barbaros

COMPARISON OF TOTAL ARTERIAL MYOCARDIAL REVASCULARIZATION AND ARTERIAL-VENOUS MYOCARDIAL REVASCULARIZATION IN PATIENTS OVER 70 YEARS OLD.

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Cardiac Surgery Students' Scientific Group, Department of Cardiac and Vascular Surgery and Transplantology, John Paul II Hospital, Kraków, Poland

OBJECTIVE

The development of civilization will extend the life of populations in developed countries. Nowadays, they are the most commonly diagnosed disease, as well as the most common cause of death in patients over 70 years old. Improvement in operating technique and, better outcomes of surgeries in elderly patients are being noted. With over 10 years observation, more beneficial results are noted for arterial revascularization with usage of arterial grafts compared with venous ones.

MATERIAL & METHOD

In the conducted study, retrospective analysis of two groups, homogenous in case of gender, age and extent of the disease, was performed. Study group consisted of patients, who underwent TAMR with usage of both internal mammary arteries and radial artery if necessary. Control group was operated with usage of LIMA and saphenous vein.

RESULTS

Application of TAMR did not affect the incidence of MI, although urgent surgery was defined as the risk factor of infarct in the study group. Deaths were reported with similar frequency in both groups (1.98 % in the study group and 2 % in the control group). Moreover, no statistically significant differences were found for wound or sternum infection and need for sternal resuture. Only BMI>30 was associated with higher incidence of postoperative infections.

CONCLUSION

Techinque of TAMR in coronary artery bypass grafting is a safe method in patients over 70 years old. It concludes with similar amount of postoperative complications as standard technique with usage of LIMA and saphenous vein. There are no statistically significant differences in the incidence of sternum or wound infections and need for sternal resuture between two groups.

KEYWORDS

TAMR, eldery patients, CABG

ORAL PRESENTATION SESSION - 3 SURGICAL SCIENCES SNO10

COMPARISON OF THE EFFECT OF GABAPENTIN, PREGABALIN AND ACETAMINOPHEN IN POST DURAL PUNCTURE HEADACHE

Hadi Saghaleini, Ehsanolah Ghorbanian
Mashhad University of Medical Sciences, Mashhad, Iran

OBJECTIVE

One of the most common and debilitating complications of spinal anesthesia is post dural puncture headache. Epidural blood patch is an invasive procedure and its performance needs expertise. On the other hand some patients are not satisfied with its results. Accordingly we decided to examine the effects of Gabapentin, Pregabalin, and Acetaminophen as an effective, safe and easy measure for the treatment of post dural puncture headache.

MATERIAL & METHOD

This study was a prospective blinded study on ninety patients who had undergone elective surgery under spinal anesthesia, and who suffered post dural puncture headache were included in our study. The patients were randomly allocated into one of the three groups; A, B, and C. A bag containing medications and instructions for their use was given to each patient. Patient's headache was evaluated with visual analog scale (VAS) at the onset of the headache, 24, 48, and 72 hours after its onset.
Data were recorded in special forms. SPSS software was used for statistical analysis.

RESULTS

The mean VAS values were less in those who received Pregabalin at all stages of administration of the drug (at the onset, 24, 48, and 72 hours).VAS values were more favorable for Gabapentin group than for Acetaminophen group.

CONCLUSION

Both Pregabalin and Gabapentin are safe and effective medications for the treatment of post dural puncture headache (specially the more severe forms). Meanwhile our results hold that Pregabalin is more effective than Gabapentin.
We suggest performing future studies on the role of these medications for prophylaxis against post dural puncture headache.

KEYWORDS

Post dural puncture headache, acetaminophen, gabapentin, pregabalin

ORAL PRESENTATION SESSION - 3 SURGICAL SCIENCES SNO11

OUR RESULTS OF SURGERY İN THE HEPATOCELLULAR ADENOMAS

İ.ÖZDEN, F.SAĞ, O.BİLGE, A.ALPER, A.EMRE, B.ACUNAŞ, M.GÜLLÜOĞLU, Y.TEKANT

BACKGROUND

Hepatocellular adenomas are a benign lesions that have risk of malignant transformation and rupture.

METHODS

Hepatocellular adenoma was detected in the 15 patients at Istanbul Faculty of Medicine, General Surgery - Department of Hepatopancreatobiliary Surgery between 2003-2013. The files of 13 patients were reviewed excluding 2 patients who underwent living doner liver transplantation, because they had glycogen storage disease.

RESULTS

Eleven patients were female, 2 patients were male. Median patient age was 36 (range: 17-56) years. The symptoms were severe abdominal pain (6), swelling in the abdomen (2). One patient had underwent drainage with the diagnosis of cyst hydatic at another clinic. This patient was transferred to our clinic due to uncontrolled bleeding. A packing procedure was applied for the transfer. Other lesion in the one patient was came out with hemoperitoneum caused by spontan rupture. Angiographic Embolisation was carried out on this patient for hemostasis and was sent to our clinic for operation. In three other patients, Hepatocellular Adenoma was diagnosed incidentally during radiologic examination. Four patients were using oral contraseptives. Tru-cut biopsy was performed for the 3 patients at other clinics. Transarterial embolization was accomplished in the packing-patient for prevention bleeding and in the other one patient to reduce lesion. Performed liver resections were lesion excision (7), right hepatectomy (4), left hepatectomy(1), left lateral sectionectomy (1). There was one lesion in 11 patients, 2 lesions in 1 patient and three lesions in 1 patient. The median main lesion size was 7 (range: 1,7-20 cm) cm. Well-differentiated hepatocellular carcinoma (the both lesions 2 cm) was detected on the pathology specimens in the 2 patients with underlying hepatocellular adenoma (13x13x9 cm and 12x10x5 cm). One patient was evaluated as a inoperable at other clinic and was operated in our clinic with right hepatic artery – binding. After the patient had performed right hepatectomy at our clinic. The patient died caused by air embolism and Disseminated Intravascular Coagulation. The other patients were followed for a median of 30 (range: 4-109 months) months. One patient developed recurrence at 80th months, this was treated with lesion excision. She has not developed recurrence yet.

CONCLUSION

Hepatocellular adenomas are lesions that should be treated and followed-up for recurrence

KEYWORDS

Hepatocellular Adenoma, Malignant transformation, Rupture

THE QUANTITATIVE ASSESSMENT OF HEPATIC ARTERIAL RECONSTRUCTION IN LIVING DONOR LIVER TRANSPLANTATION.

Sema Baghaki Doç.Dr.Murat Dayangaç Prof.Dr. Refik Killi Prof.Dr. Yaman Tokat
Istanbul Bilim University Medicine Faculty,Istanbul Florence Nightingale Hospital

OBJECTIVES

In living donor liver transplantation (LDLT), intraoperative ultrasound (IOUS) is indispensable for evaluating the vascular anastomoses and the blood flow. Our objective was to investigate the impact of quantitative Doppler US assessment on the quality of hepatic arterial reconstruction in LDLT.

MATERIAL & METHOD

In this prospective cohort study, 77 adult patients who underwent right lobe LDLT between January 2013 and January 2014 were included. In all patients, hepatic arterial reconstruction was performed under the operating microscope in end-to-end fashion using interrupted sutures. Upon the completion of arterial anastomosis, an immediate IOUS was performed with 9-MHz linear transducer. Quantitative sonographic evaluations included luminal diameter of the graft and recipient arteries and the hepatic arterial anastomosis, peak systolic velocity (Vs), systolic acceleration time (SAT), and resistive index (RI). A qualitative evaluation was also performed for both graft and recipient arteries to detect intimal thickening, occurrence of thrombus, and dissection. A surveillance Doppler US was performed selectively in patients with suboptimal hepatic arterial flow in IOUS, and all other recipients were followed clinically without routine radiologic examination

RESULTS

A single hepatic arterial anastomosis was performed in all cases. The median luminal diameter of the graft and the recipient artery and the arterial anastomosis were 3.4 (3.0-3.8), 3.5 (2.9-4.2), and (1.8 (1.5-2.1) mm, respectively. The median peak systolic velocity and RI were 62.5 (37.2-86.7) cm/sec and 0.64 (0.57-0.63), respectively.

In 17 (22.0%) patients, IOUS showed pathological findings, which were corrected by surgical revision. In patients with anastomotic revision, the mean diameter of the arterial anastomosis was significantly lower (1.9±0.44 vs. 1.6±0.46, p=0.01).

In a median follow-up of 6.0 (3.0-9.0) months, only one (1.2%) patient developed hepatic artery thrombosis (HAT). Despite anastomotic revision and celiac artery decompression for significant arcuate ligament compression, the final quantitative IOUS assessment was suboptimal. He developed HAT 2 weeks after the primary transplant and underwent successful re-transplantation.

CONCLUSION

In LDLT, the use of IOUS provides instant diagnosis and correction of hepatic arterial problems. In patients with satisfactory quantitative IOUS assessment, the outcome of hepatic arterial reconstruction is excellent.

KEYWORDS

Liver transplantation, arterial anastomosis.

ORAL PRESENTATION SESSION - 3 SURGICAL SCIENCES SNO13

DOES THE POSTOPERATIVE TROPONIN I BLOOD CONCENTRATION MEASURED IN PERIOPERATIVE PERIOD INFLUENCE HEMODYNAMIC FUNCTION OF A TRANSPLANTED HEART?

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OBJECTIVE

To determine correlation between plasma TnI I concentration measured within the first 4 days following heart transplantation and clinical course with particular consideration of hemodynamic function of transplanted heart.

MATERIAL & METHOD

Retrospective study included 54 patients (5 females, 49 males) aged 12-62 years (median = 52, qr = 15) who underwent HTX. Transplanted hearts were harvested and implanted using identical scheme. Troponin I blood levels were assessed repeatedly over the first 4 post-operative days using one-step immunoenzymatic test. The highest daily TnI values were taken into the analysis. Hemodynamic parameters were assessed daily at Swan-Ganz catheterization and echocardiography. Mean values of measured parameters were analyzed using statistical methods. If no correlation was found, further detailed analysis of the data was performed

RESULTS

There is a strong and positive correlation between the mean plasma TnI levels and the mean number of required inotropic drugs ($r = 0.51$ $p = 0.00$) and also for mean central venous pressure (CVP) ($r = 0.33$ $p = 0.015$). The weak trend towards positive correlation between the mean values of pulmonary capillary wedge pressure (PCWP) and the mean plasma TnI levels was observed . There was no correlation between mean plasma TnI levels and mean values of ejection fraction (EF) and cardiac output (CO). Detailed analysis showed statistically significant correlation between TnI levels on the days 3 and 4 after HTX and PCWP on the preceding days ($r = 0.32$ $p = 0.04$; $r = 0.46$ $p = 0.006$ respectively). Furthermore strong, reverse correlation between TnI levels on day 3 and CO on day 4 following HTX was observed ($r = -0.44$, $p = 0.03$).

CONCLUSION

Plasma troponin I concentration is useful marker for assessing the hemodynamic function of a transplanted heart. Troponin I blood level should be assessed daily as a standard procedure in early postoperative period

KEYWORDS

heart transplantation, troponin, hemodynamic parameters, inotropic drugs

SIGNIFICANCE OF FIRST POST-OPERATIVE BRONCHOSCOPIC VIEW VISUAL EVALUATION IN PREDICTING OUTCOMES AND NEED OF ADDITIONAL SURGICAL INTERVENTION AFTER BENIGN LARYNGOTRACHEAL AND TRACHEAL STENOSIS RESECTION.

Prof. Romaldas Rubikas, Julius Jonas Jelisejevas, Lukas Andrius Jelisejevas
Department of Thoracic Surgery and Department of Pulmonology, Hospital of LUHS, Lithuania.

OBJECTIVE

To evaluate results and importance of first post-operative bronchoscopic view (FPOBV) in predicting outcomes and need of additional surgical intervention (ASI) of benign laryngotracheal and tracheal stenosis (BLTATS) after surgical treatment.

MATERIAL & METHOD

Since 1996 to 2011, 72 patients were operated on due to benign post-intubation (n=69), traumatic (n=2) and idiopathic (n=1) stenosis of the lower part of the larynx and trachea. Laryngotracheal and tracheal resection and reconstruction underwent 23 and 49 patients, respectively. 72 case histories and FPOBV were analysed retrospectively.

For visual evaluation of FPOBV original 0-10 grading scale was used. This grading system included evaluation of surgical suture integrity and overall view, diameter of tracheal opening and pathological changes (granulations and ligatures).

Patients were divided into two groups. First group of patients did not need to undergo ASI. Second group of patients underwent ASI (endobronchial removal of granulations or/and ligatures, tracheostomy, stenting or additional resection of trachea).

Each FPOBV was evaluated using 0-10 grading scale. By a mark of maximum 10-point was evaluated ideal (correct shape of surgical suture without pathological changes of tracheal opening) FPOBV.

Analysis was performed using SPSS version 18.0. Findings after resection were analysed using method of discriminant analysis. Sensitivity of prognosis (98%) was confirmed by cross-validated method.

RESULTS

Due to resection of BLTATS 7 (9.72%) patients needed to undergo ASI. Six of these patients' FPOBV was evaluated by mark 6 or lower; one FPOBV mark was 7. Grade average in this group (5,43 +- 1,618). Other 65 patients who had no post-operative complications leading to ASI, FPOBV was evaluated 7-10. Grade average in this group (8,38+-0,804). Good post-operative results of resection of BLTATS were 90% (65 of 72 patients).

Discriminant analysis (sensitivity 98%) of FPOBV visual evaluation results showed that dividing line between poor (needed ASI) and good (did not need ASI) post-operative outcomes (POO) is a mark of 6.9. Visual evaluation of FPOBV with a given mark higher that 6.9 enables to predict good POO and lower than 6.9 mark enables to predict poor POO which would need ASI

CONCLUSION

1. FPOBV enables to predict POO and need of ASI after BLTATS resection.
2. A mark <6.9 of visual evaluation of FPOBV enables to prognosticate reliably a need of ASI.
3. At LUHS Hospital, Clinic of Thoracic surgery results of BLTATS treatment are equivalent to good results described in specific medical literature.

KEYWORDSPost-operative, bronchoscopic view, visual evaluation, benign laryngotracheal stenosis, tracheal stenosis, resection.

May 18th, Sunday
15.00-15.50

Session 4

INTERNAL MEDICINE/SESSION-II

Chairperson: Dr. Yavuz DİZDAR

ORAL PRESENTATION SESSION - 4 INTERNAL MEDICINE **SNO15**

MORTALITY RISK FACTORS FOR HOSPITALIZED PATIENTS WITH COMMUNITY ACQUIRED PNEUMONIA

Ginta Vasiļjeva
Riga Stradiņš University

OBJECTIVE

Community acquired pneumonia is one of the leading causes of death worldwide. The aim of this study was to establish the mortality within hospitalized patients with community acquired pneumonia (CAP) and the main risk factors of mortality.

MATERIAL & METHOD

This was a retrospective study of hospitalized patients with radiologically-confirmed CAP who were hospitalized in the Riga East Clinical University hospital,
Clinic Gailezers between September 1, 2012 and August 31, 2013. Following data were analyzed: age, sex, systolic blood pressure (SBP), diastolic blood pressure (DBP), heart rate, confusion, blood oxygen saturation, leukocyte count, thrombocyte count, C-reactive protein levels, blood glucose levels, radiological findings. All the data were collected from the medical documentary during admission to the hospital. Fisher's exact test and ANOVA test were used for statistical analyses.

RESULTS

A total of 358 patients met the inclusion criteria of CAP. Total mortality during hospitalization was 71 (19.8%) patients. These patients were older than cured patients (70.13 ± 16.2 vs 62.33 ±19.9 years, $p=0.002$), had lower SBP (111.8 ± 30.4 vs 134.0 ± 22.9 mmHg, $p<0.001$), had lower DBP (63.19 ± 18.8 vs 74.7 ± 13.6 mmHg, $p<0.001$), had lower blood oxygen saturation (87.9 ± 10.4 vs 93.6 ± 5.5 %, $p<0.001$). Dead patients had higher mean C-reactive protein level (239.56 ± 144.96 vs 181.53 ± 144.20 mg/L, $p=0.003$), lower mean thrombocyte count (197.37 ± 110.76 vs 247.42 ± 118.85 x109/L), higher mean glucose levels (9.42 ± 8.66 vs 7.77 ± 3.10 mmol/L). Bilateral infiltrates were confirmed in 30(42.3%) of dead patients and in 53(18.6%) of cured patients, $p<0.001$, confusion - in 44(62.0%) of dead patients and in 23(8.0%) of cured patients, $p<0.001$.

CONCLUSION

Dead patients were statistically significant older. Poor prognosis risk factors were bilateral pneumonia, confusion, lower blood pressure, blood oxygen saturation and lower mean thrombocyte count. Dead patients had higher mean C-reactive protein and glucose levels.

KEYWORDS
Community acquired pneumonia, mortality

ORAL PRESENTATION SESSION - 4 INTERNAL MEDICINE **SNO16**

MR IMAGING CHANGES AFTER STEREOTACTIC RADIATION FOR BRAIN METASTASES IN A SINGLE-INSTITUATION COHORT

Amanda J. Walker, MD, Kubra Gokce, Stephanie Honig, Lawrence Kleinberg, MD, Kristin Redmond, MD.

The Johns Hopkins University, Baltimore, MD
Trakya University Faculty of Medicine, Turkey

OBJECTIVE

The use of stereotactic radiosurgery (SRS) for treatment of metastatic intracranial disease has grown in popularity due to its lower rate of cognitive toxicities compared to whole brain radiation therapy, its ease of scheduling between cycles of chemotherapy, and its inclusion as a treatment option in clinical trials. The effectiveness of SRS in treating brain metastases is well documented, and the local control is estimated to be approximately 90%. Most lesions will demonstrate response to treatment via a decrease in size on contrast enhanced T1 weighted MRI. However, a transient increase is size of the lesion on MRI is not unexpected and does not necessarily reflect treatment failure. The etiology of this treatment effect is thought to be secondary to vasogenic edema and inflammation, and the incidence has been reported between 12 and 50%. A more thorough characterization of imaging changes post-SRS is warranted in order to optimize patient management. In this single-institution retrospective analysis, we characterize the imaging changes after SRS for brain metastases.

MATERIAL & METHOD

A single institution retrospective review was performed evaluating any patient treated with stereotactic radiosurgery for brain metastases between September 2010 and June 2013. MR imaging of 370 lesions in 152 patients treated with stereotactic radiosurgery at The Johns Hopkins Hospital were evaluated. Lesion volume at initial treatment and each follow-up was calculated with the following formula: (length x width x height)/2. Volume changes will be correlated with patient demographics, histopathology, and radiation treatment variables.

RESULTS

Based on our preliminary analysis, approximately one third to one half of lesions demonstrate an increase in size on T1 post-contrast MRI after radiosurgery. These changes were seen as early as 1-2 months post–treatment. Forty-three of 101 (43%) and 26 of 67 (39%) of evaluable lesions demonstrated an increase in size on contrast enhanced T1 weighted MRI at 2 and 6 months, respectively. Based on our preliminary analysis, approximately 20 patients had surgical resection of a lesion after SRS due to concern for tumor progression and/or radionecrosis. Of those patients, approximately half demonstrated tissue necrosis/treatment effect rather than tumor progression. Future analyses will include correlative studies with patient demographics, histopathology, and radiation treatment variables.

CONCLUSION

A transient increase in volume is seen in approximately one third to one half of intracranial metastatic lesions treated with SRS, and these changes are observed as early as 1-2 months post-SRS.

KEYWORDS

MR,stereotactic,radiation

ORAL PRESENTATION SESSION - 4 INTERNAL MEDICINE **SNO17**

COMPARISON OF ABVD AND BEACOPP AS THE FIRST-LINE CHEMOTHERAPY REGIMENS IN HODGKIN LYMPHOMA AND INDICATIONS FOR TREATMENT ESCALATION - A SINGLE-CENTER RETROSPECTIVE COHORT STUDY

Agata Bryk, Wojciech Jurczak MD, PhD, Paweł Kozlik, Agata Krawczyk, Renata Pacholczak
Department of Haematology, Jagiellonian University Medical College, Cracow, Poland.

OBJECTIVE

To compare long-term treatment outcomes with BEACOPP and ABVD used as a first-line chemotherapy in Hodgkin lymphoma, identify risk factors of treatment failure.

MATERIAL & METHOD

A group of 210 patients diagnosed with clinical stage II(B/X)-IV Hodgkin lymphoma at the Department of Haematology Jagiellonian University Hospital, Krakow, Poland between years 1999 and 2012, divided depending on the first-line chemotherapy regimen received (ABVD or BEACOPP) and compared in respect to progression-free survival, autologous stem cell transplant-free survival, overall survival (Kaplan-Meier's survival analysis, Cox's F test), initial clinical stage, IPI and EORTC scores as well as particular parameters comprising these scales and overall proportion of patients with progression, relapse or death in each group (ANOVA, Pearson's or Fisher's chi-square tests, when appropriate). First-line chemotherapy regimen, initial clinical stage, IPI and EORTC scores were included in the multiple logistic regression analysis to determine their impact on odds of certain end-points occurrence. Subgroup analysis was performed to establish outcome differences depending on initial clinical stage.

RESULTS

Patients who started with BEACOPP as the first-line chemotherapy regimen present longer OS and PFS compared to those who started with ABVD ($p<0,05$ and $p<0,01$, respectively), despite lack of significant difference in complete response rate after initial treatment. Both death and progression/relapse were less frequent in the BEACOPP group ($p<0,05$ and $p<0,01$, respectively). Patients eventually requiring ASCT did not differ significantly in respect to ASCT-free survival ($p=0,55$). Of the prognostic factors, only IPI and chemotherapy regimen were found to significantly affect risk of progression/relapse in the multiple logistic regression analysis, with a total model OR of 8,96. ABVD compared to BEACOPP was found to increase the risk of progression/relapse independently from initial CS, EORTC or IPI scores (OR=5,41; 95% CI: 2,05-14,27, $p<0,001$).

CONCLUSION

In CS II(B/X)-IV Hodgkin lymphoma, BEACOPP regimen appears to be beneficial over ABVD as a first-line chemotherapy regimen in respect to long-term outcomes and occurs as an independent factor of sustained remission, despite lack of significant difference in complete response rate immediately after initial treatment.

KEYWORDS

Hodgkin lymphoma, BEACOPP, ABVD.

ORAL PRESENTATION SESSION - 4 INTERNAL MEDICINE **SNO18**

DEMOGRAPHIC AND CLINICAL CHARACTERISTICS OF PATIENTS WITH AUTOSOMAL DOMINANT POLYCYSTIC KIDNEY DISEASES IN ISTANBUL FACULTY OF MEDICINE

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Istanbul Faculty of Medicine

OBJECTIVES

Autosomal dominant polycystic kidney disease (ADPKD) is the most common hereditary renal disease which affects about 1 in 400 to 1 in 1000 people worldwide. Therefore it is vital to know the process of the disease elaborately. The aim of this study was to assess the demographic and clinical characteristics of patients with ADPKD.

MATERIAL & METHOD

Medical records of 144 individuals with ADPKD disease were examined and the data were acquired from these records. The investigated demographic and clinical characteristics were age, gender, smoking history, hypertension, types of antihypertensive drugs, macroscopic hematuria, urinary tract infection, urinary tract stones, renal replacement therapy, cysts found in other organs, and results of the patients' blood and urine tests such as blood urea nitrogen (BUN), creatinine, cholesterol, albumin, hemoglobin and proteinuria. Patients who had blood pressure (BP) of 140/90 mmHg or greater and/or using antihypertensive medications were considered as hypertensive.

RESULTS

The study included 61 male and 83 female patients. The mean age of patients was 50.1 years. 11.9% of the patients were smokers whereas 4.2% were ex-smokers. The mean systolic and diastolic BPs were 139.2 mm Hg and 89.5 mm Hg, respectively. The mean arterial pressure was 106.1%. 81.3% of the patients had hypertension. 71.5% used antihypertensive drugs and 49.5% of those used renin-angiotensin system (RAS) blockers (angiotensin converting enzyme inhibitors and angiotensin receptor blockers). 13.2% of the patients had macroscopic hematuria and 16.7% had urinary tract stones. Liver cycts were investigated and found in 27.1% of the patients. 11.2% had end stage renal disease and were treated with hemodialysis.

CONCLUSION

This study showed that hypertension is the most common clinical finding in ADPKD patients and RAS blockers are widely used. The presence of potential risk factors such as age, smoking, clinical renal manifestations, hypertension and disease in family members should be questioned and investigated at the first appointment in order to slow the progression of the disease.

KEYWORDS
Polycystic kidney disease, hypertension, RAS blockers

TOTAL CEREBRAL VOLUME MEASUREMENT: A NEW APPROACH

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OBJECTIVE: Stereology deals with the volume measurement from the two-dimensional images. From the end of 1980s the volume of brain structures are measured with the aid of magnetic resonance imaging(MRI) and stereology. These studies show the brain structures' volume differences between the healthy controls and neurologic/psychiatric patients. In last 25 years hundreds of MRI volume measurements are achieved in tens of neurologic and psychiatric disorders. In these studies the volume of measured brain structure is named as raw volume. The raw volume is interpreted in comparison with the whole brain volume. Every two other slices are measured when the total cerebral volume(TCV) is obtained. Our aim to show the reliability of the measurement of every four other slices for the savings.

MATERIAL AND METHODS: We measured the cranial MRI of 10 healthy subjects with AFNI(Analysis of Functional NeuroImages). AFNI is cursor-based volume measurement program. According to measurement protocol the volume of the brain tissue under dura mater is measured. The measurements are in sagittal plane. During this study the primer rater measured every subject twice and the results are used for the intra-rater reliability. The secondary raters measured every subject once and the results are used for the inter-rater reliability. This process was repeated for every two other slices measurements and every four other slices measurements.

RESULTS: In the MRI volume studies the intra-class coefficient(ICC) will be efficient if it is 0.90 or higher. In every two other slices measurement of TCV the ICC of the intra-rater reliability is 0.988 and the ICC of the inter-rater reliability is between 0.983 and 0.997. In the comparision between every two other slices measurement and every four other slices measurement the ICC is between 0.996 and 1.00.

CONCLUSION: This study shows that the results of every two other slices measurement and the results of every four other slices measurement are compatible with each other. The cursor-based TCV measurement of a subject lasts approximately 70 minutes. Every four other slices measurement of TCV is a reliable approach that allows saving of time.

KEYWORDS: MRI, total cerabral volume, stereology

May 19th, Monday
11.00-12.15

Session 5
BASIC SCIENCES

Chairperson: Prof. Dr. Evin ADEMOĞLU

INVESTIGATION OF THE PRESENCE OF mecA GENES IN COAGULASE-NEGATIVE STAPHYLOCOCCI BY PCR METHOD

Seifu Ahmed Ibrahim, Emre Yuksel, Osman Uygun, Edanur Tekcan, Muhammed Furkan Enki, Kamil Kalayci, Emre Bilgi
Ondokuz Mayis University School of Medicine, Samsun, Turkey

OBJECTIVE

Coagulase-negative staphylococci (CoNS) are a major cause of bacteremia in hospitalized patients. Moreover, the resistance overtime they acquired against antibiotics due to mecA genes; made their treatment difficult and costly. In the present study we aimed to investigate the correlations between phenotypic resistance & presence of mecA gene in CoNS.

MATERIAL & METHOD

In this study, 82 CoNS isolates were collected from various clinical samples. These Staphylococci isolated from clinic specimens were screened for methicillin resistance by microdilution method determining oxacillin susceptibility according to the Clinical and Laboratory Standards Institute (CLSI) guidelines. The DNA extractions were made for newly passaged strains. The presence of mecA gene was tested by PCR method using MEA 1 ve MEGA 2 primers.

RESULTS

Methicillin resistant 52 strains and sensitive 30 strains which were identified by oxacillin minimum inhibitory concentration method were analyzed and 17 strains were found to possess mecA gene by PCR method.

CONCLUSION

The detection of mecA gene by PCR is most reliable approach for genotypic resistance, nevertheless oxacillin MIC method is quite useful and specific method which can be used to identify phenotypic resistance.

KEYWORDS

Coagulase-negative staphylococci (CoNS), mecA, PCR

ROLE OF HUMAN MILK DERIVED OLIGOSACCHARIDES IN VASCULAR INFLAMMATION, ATHEROSCLEROSIS AND THROMBOSIS

Ayse Ceren Tanritanir, Purna Mukherjee, Subrata Chakrabarti and David Newburg

Boston College 140, Commonwealth Avenue, Chestnut Hill, MA 02467, USA

OBJECTIVE

Human milk derived oligosacchardies (HMOS) have been reported to exert anti-inflammatory effect in Intestinal Epithelial cells and also known to have beneficial prebiotic effects in vitro. HMOS also attenuate inflammation by reducing thrombocyte-neutrophil conjugate formation, however, precise studies examining HMOS components in the thrombocyte-mediated immune-inflammatory response is lacking. We hypothesize that HMOS modulate inflammation in the blood vessel (e.g., atherosclerosis) by influencing thrombocyte and endothelial activation.

MATERIAL & METHOD

Medication and any sickness concerning thrombocyte response free human volunteers were utilized for thrombocyte isolation.Thrombocyte response to the addition of the HMOS components were explored by the experiments focusing on the three main thrombocyte functionalities which play very basic role on the development of the atherosclerosis as a response to any predisposing blood vessel damage. Thrombocyte activation was manifested by ELISA-CD40L and RANTES which were secreted during thrombocyte activation. Thrombocyte adhesion under both static and dynamic blood flow conditions was monitored on native collagen fibrils type I coated layer. Finally, thrombocyte aggregation was detected by a Chrono-log Lumi-Aggregometer. All the experiments were conducted in presence and absence of HMOS.

RESULTS

Data acquired and focusing on the release of sCD40L and RANTES showed a statistical significance ($P<0.05$) .Consistent with that, marked attenuation of collagen induced-thrombocyte aggregation and thrombocyte adhesion were seen as compared with the samples without HMOS presence.

CONCLUSION

HMOS components may have an anti-thrombotic and anti-activatory role on thrombocytes regarding reduced RANTES and CD40L release, which were secreted during thrombocyte activation, prevented collagen-induced thrombocyte adhesion and reduced thrombocyte aggregation during Lumi-Aggregometer experiment. Our studies might shed light on a new perspective of the natural use of the human milk-derived oligosaccharide in the prevention of the vascular inflammation associated with atherosclerosis and thrombosis.

KEYWORDS

Vascular inflammation, atherosclerosis, human milk oligosaccharides

THE ANATOMY OF THE DISTAL CLAVICLE IN A KENYAN POPULATION

Beryl S. Ominde, Bsc(Anat), Kirsteen O. Awori MBChB,Mmed, Julius A. Ogeng'o , Bsc(Anat),MBChB, PhD.
Department of Human Anatomy, University of Nairobi, Kenya

OBJECTIVE

To determine the mean length of clavicle
To determine the superior-inferior thickness of the distal edge of the clavicle
To establish the distance of conoid tubercle and trapezoid tuberosity from the lateral edge of clavicle

MATERIAL & METHOD

One hundred and eighty (180) dry clavicles were obtained from the collection of the Department of Human Anatomy, University of Nairobi. These were classified into right (90) and left (90) bones excluding those with deformities from previous fractures or gross degenerative changes.

Clavicular length (S1) and the distance of medial border of conoid (S2) and centre of trapezoid (S3) tuberosities from the lateral edge of clavicle (Rios et al, 2007)were measured to the nearest millimeter using a ruler. The supero-inferior thickness of lateral edge was measured using a vernier caliper Sealey Professional Tools™, United Kingdom. Photographs of representative clavicles were taken using a Cybershot® digital camera, Sony, Japan. Data were collected by a single observer at three sittings. Intra-observer variability was mitigated by taking three measurements and recording the average in data sheets.Data were coded and analyzed using computer software Statistical Package of Social Sciences (SPSS) Chicago Illinois version 17.0 for windows. Means, standard deviations and ranges of the morphometric data were then calculated. Independent t- test was employed to compare left and right differences. P-value of ≤ 0.05 was considered significant. Data are presented using tables and scatter plots.

RESULTS

The mean clavicle length was 148.57±12.63mm. Conoid and trapezoid tuberosities were 39.52±5.93mm (range, 23-58mm) and 17.96±3.42mm (range, 10-28mm) respectively from the lateral edge of clavicle. These distances correlated positively with the length of clavicle and occupied 0.3 and 0.15 of total clavicular length respectively. The mean supero-inferior thickness of the lateral edge was 10.09±2.36mm (range, 5.37-18.43mm).

CONCLUSION

The length of clavicle is 148.57mm and its lateral edge is 10.09mm thick. The CT lies at a function of lateral one third and medial two thirds while the TT is midway between CT and lateral end. These measurements show variability in different populations and groups and this should be taken in consideration by designers of clavicular implants as well as surgeons involved in clavicular fractures fixation

KEYWORDS

Clavicle, length, lateral end, conoid, trapezoid, supero-inferior thickness

NEUTROPHIL EXTRACELLULAR TRAPS(NETS) KILL BACTERIA AFTER MAJOR BLUNT TRAUMA

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OBJECTIVE

Neutrophils engulf and kill bacteria when their antimicrobial granules fuse with the phagosome. In this study, we have tried to describe that, upon activation of the mitochondrial debris that entered to circulation after major blunt trauma, neutrophils migrate to inflammatory area and release granule proteins and chromatin that together form extracellular fibers that bind Gram-positive and -negative bacteria. These neutrophil extracellular traps (NETs) degrade virulence factors and kill bacteria. NETs appear to be a form of innate response that binds microorganisms, prevents them from spreading, and ensures a high local concentration of antimicrobial agents to degrade virulence factors and kill bacteria.

MATERIAL & METHOD

To determine whether NETs are present in vivo, we analyzed samples from fifteen patients who had major blunt trauma. Special immune-histochemical staining of histological sections clearly showed extracellular fibrous material that contains NET components: histones DNA, and neutrophil elastase.

RESULTS

Neutrophils were treated with 100 ng of IL-8 for 40 min before infection. Also, neutrophils were treated with cytochalasin D to prevent phagocytosis; and infected with S. flexneri or S. aureus. At immunofluorescence of neutrophils infected with S. flexneri, stained for the virulence factor IpaB, IpaB was degraded by neutrophil elastase, and also, IpaB was detectable on the bacteria, only when neutrophil elastase is blocked with SLPI. Western blot has showed that the virulence factor(IpaB) was degraded by neutrophils incubated with S. flexneri. Extracellular bactericidal activity was greatly reduced in both S. flexneri and S. aureus infections after incubation with DNase, which dissociates NETs. Extracellular bacterial killing by neutrophils was reduced by addition of antibodies against histones.

CONCLUSION

These data strongly indicate that NETs are not the result of leakage during cellular disintegration. We cannot exclude, however, the possibility that NET formation is an early event in the neutrophil program for cell death. Neutrophils are terminally differentiated cells that are programmed to die a few hours after they enter into circulation. Furthermore, isolated neutrophils are a heterogeneous population with respect to age, and a small portion of this “aged” subpopulation is expected to die. Neutrophils can undergo caspase-dependent and independent apoptosis in vitro, but the process that leads to neutrophil death in vivo is not known. It is conceivable that NET formation is an early event in cell death.

KEYWORDS

Immunology, Autoimmunity, Neutrophil Extracellular Traps, NETs, Extracellular DNA, Trauma, Mitochondrial DNA,Mitochondrial Debris, Sepsis.

ORAL PRESENTATION SESSION - 5 BASIC SCIENCES MNO24

TDM OF CYCLOSPORINE CONCENTRATIONS IN ADULTS AND CHILDREN RECIPIENTS AFTER LIVER TRANSPLANTATION

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OBJECTIVES

Immunosupression following transplantation is key to the survival of both allograft and recipient. After ortothopic liver transplantation (OLT) many patients use microemulsion cyclosporine (Neoral ®). TDM was performed in order to avoid the risks related to low and high drug systemic exposure. Usually Neoral® is given twice daily. Recent data suggest that drug blood levels 2 hours post dosing (C2) are better prognostic criterion than trough (C0) levels for predicting cyclosporine systemic exposure over the first 12 hour dosing interval. However, limited data have been published on the overall usefulness of C2 monitoring after liver transplantation. Thus, we investigated the variability in C0 and C2 cyclosporin concentrations in children and adults after liver transplantation.

MATERIAL & METHOD

The study included 20 patients (8 adults and 12 children) who were on cyclosporine (Neoral®) at least 6 months post- OLT over 2004 – 2009 years. The mean age of adult patients at the time of OLT was 35.5 years (range 18 – 52 years) and the mean age of children was 2 years and 7 months (range between 5 months and 12 years). All patients received Neoral® twice daily orally at 08.00 am and 20.00 p.m. Within this dosing regimen a stable Neoral® dose maintained trough levels between 50 and 150 ng/ml. Whole blood cyclosporine concentrations were determined by Fluorescence Polarisation Immuno Assay (FPIA), Abbott Diagnostics. We measured C0 drug concentrations in the morning (C0AM) and in the evening (C0PM) and also C2 concentrations in the morning after the first daily dose of the drug (C2AM) and after the second evening dose (C2PM). Within and between differences of drug concentrations in the adult and children age groups for C0AM, C0PM and C2AM and C2PM were statistically analyzed. For comparison of drug concentration distributions we used normalized to 1mg/kg cyclosporine concentrations in order to avoid body weight (BW) differences in drug dosage calculations. Statistical analysis was performed on GrafPad Prism 5.0. Results are expressed as mean ± SD and as median and its ranges (Wilcoxon test). Potential differences were explored by paired samples t-test and Shapiro Wilkoxon normality test analysis. Relationships were investigated using correlation test and P-value less than 0.05 were considered as statistically significant.

RESULTS

The results revealed statistically significant difference ($p<0.0001$) between normalized C0AM in adults versus normalized C0AM in children (71.52 ± 4.12, n = 149 vs 50.28 ± 3.322, n = 259). No circadian differences in drug concentrations were observed between both populations. The evening dose in children and adults lead to statistically different C0AM.

CONCLUSION

The finding can't be explained by body weight differences between adults and children patients since normalized cyclosporin concentrations were analyzed. We expect that epigenetic factors, controlling cyclosporin metabolism and distribution, could be a reason for that difference.

KEYWORDS: Cyclosporine concentrations, liver transplantation, cirrcadian variability

VASA VASORUM OF THE PORCINE CORONARY ARTERIES

M. Patzelt [1], D. Kachlik [1], V. Musil [2], J. Stingl [1], J. Sach [3]

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2 Centre of Scientific Information 3 FM CU in Prague, Czech Republic
3 Department of Pathology 3 FN CU in Prague, Czech Republic

OBJECTIVE

According to the recent data, the neoangiogenesis of the vascular system supplying the walls of the human coronary arteries – vasa vasorum (VV) – seems to play very important role in the ethiopathogenesis of several pathological processes (atherosclerosis, thrombosis, medionecrosis etc.). On the other hand, a detailed morphological description of the human as well as the porcine coronary VV is still not available.

The aim of the study was an anatomical study of the architectonical arrangement of the coronary VV and of their inner structure in the normal porcine heart. The results obtained should verify the validity of either classical opinion of S. T. Sömmering (1800), that all blood vessels approach to the vascular wall from the adventitia or of the recently valid theory of Gössl et. Al. (2003), affirming that some parts of the arterial system of VV originates directly from the lumina of coronary arteries and ramify in the arterial wall from its inner side.

MATERIAL & METHOD

Fresh hearts of twenty four normal six months old pigs (120-140 kg) were used for the study. The coronary arteries were either injected (India ink, Dentacryl, Mercox Resin, Biodur Resin) or processed histologically. Samples were analyzed by microscope, dissection magnifying glass, scanning electron microscope and microCT.

RESULTS

Analysis of the injected specimens as well as of the histological sections univocally demonstrated that the blood supply of the walls of the coronary arteries ensure in the whole extent only the adventitial VV, approaching the arteries from the close neighborhood. Arterial branches of the VV system, which originate directly from the arterial lumina (so called vasa vasorum interna after Gössl) were not detected in any case. All parts of the VV system, e.g. arteries, capillaries and veins, are distributed only in the adventitia and in the outermost thin layers of the media of coronary arteries. Finally, a richness of valves closing the lumina of all veins of VV was described

CONCLUSION

It can be concluded that on the supply of the walls of porcine coronary arteries participate only the adventitial VV, while the arteries entering the arterial walls from their lumina directly were not detected. The results obtained can be used in further studies, oriented on the architectonics and structure of the VV of the coronary arteries of human heart, too.

KEYWORDS

Vasa vasorum, porcine coronary arteries, morphology

ARNTL2 GENE EXPRESSION IN AUTISM SPECTRUM DISORDERS

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OBJECTIVE: Autistic spectrum disorder (ASD) is a neuropsychiatric disorder characterized by impaired social interaction and verbal and non-verbal communication, and restricted/repetitive behavior. In our previous study we studied *OPRL1*, *TACR1* and *HTR1E* genes which are related to aggression, anger and pain insensitivity. These genes are also related to amygdala and clinical symptoms of ASD. As a result of preliminary study, expressions of 3 genes are found statistically significant and expression levels were decreased in ASD patients. Also, it can be thought that there may be expression differences in all localized genes in amygdala in ASD. We aim to investigate the expression of *ARNTL2* which is expressed in amygdala. This gene was not studied in autism before but it is associated with psychological disorders like bipolar disorder.

MATERIALS AND METHODS: This research includes 28 ASD patients and 14 healthy controls. 23 (82.1%) of these patients are boys, 5(17.9%) of them are girls. Control group is consist of 10 boys (71.4%) and 4 girls (28.6%). Total RNA isolated from whole blood samples by TRIZOL. *ARNTL2* gene expression was assessed by Quantitative Real-Time PCR.

RESULTS: *ARNTL2* gene expression was found as 1.61 (1.00-3.76) in control group and 0.96 (0.22-2.00) in patient group and this result is not found statistically significant (p=0.08).

CONCLUSIONS: A defect is determined in microscopic organization of amygdala in autistic children. Although there are lots of genes which are associated with amygdala, the genes *DRD4*, *CRHR1*, *OPRL1*, *ARNTL2*, *TACR1*, *HTR1E*, *OPRM1*, *PRKG1* become prominent. The gene expression of *ARNTL2* is low but not found statistically meaningful and this situation might be explained with small number of cases. Therefore, it is needed to make comprehensive researches about this topic with increased number of patients.

KEYWORDS: Amygdala, Autistic spectrum disorder, Expression, *ARNTL2*

ORAL PRESENTATION SESSION - 5 BASIC SCIENCES MNO34

TRANSCRIPTION ACTIVATOR-LIKE EFFECTOR NUCLEASE(TALEN) MEDIATED SITE-SPECIFIC GENOME MODIFICATION OF INDUCED PLURIPOTENT STEM CELLS(iPSCs)

Zübeyr Kavcar, Yasuhiro Ikeda
Mayo Clinic Molecular Biology Department

OBJECTIVE

In patients with type 1 diabetes, pancreatic beta cells self-destruct, leaving the body bereft of insulin.. Still, every year, diabetes kills about 70,000 people in the United States and is a contributing cause in another 160,000 deaths each year, according to the Centers for Disease Control and Prevention. Create a customizable gene and stem cell therapy system possibly permanently eliminating the need for insulin injections.

MATERIAL & METHOD

LIN 28 gene is specifically expressed in pluripotent cells such as iPSCs.LIN 28 gene locus targeted to select undifferentiated cells that pose risk for teratoma.

EF1 A gene is highly expressed by any human cells. EF1-α gene makes use of therapy for lots of cancer types.

Talen technology is used for targeting to gene. Two Talens cut a DNA. Talens are designed to recognize very close DNA parts where we want to cut. Talens are recognizing by their DNA binding domains and they cut DNA.

They targeted end of the open reading frame that is before the stop code. Our Talens recognize DNA sequence that very close to stop code and cut them.

Produced AAV vector construction that targeted EF1 A region.AAV vector has two part which is same as EF1 A, just before the stop codon and after this stop codon region this is the right hand, left hand called. Puromycin emerald green fluorescent protein(GFP) put between this hands. GFP makes cells extremely green for indication become resistant to puromycin antibiotics. In this way undifferentiated cells are picked up. After Talens work gene specific enzymes cannot recognize and cannot digest DNA. This is the proof that Talens worked.

RESULTS

In first attempt the experiment gave negative result. The points to be considered in future studies to verify the each step. Sequencing the TALEN plasmids. Use of a T3 GFP plasmid as a positive control for the mRNA synthesis and transfection.

CONCLUSION

This study will prevent the formation of teratoma which significant obstacle in achieving pancreatic beta cells.

KEYWORDS: diabetes,stemcell,

May 19th, Monday
13.15-14.30

Session 6

PUBLIC HEALTH

Chairpersons: Dr. Metban GÜZEL

Dr. Toğrul MESTANZADE

ORAL PRESENTATION SESSION - 6 PUBLIC HEALTH MNO27

PREVALENCE OF DEMENTIA IN COINCIDENCIAL INDIVIDS OF GROUP AGE 50-90
(Experience from the western part of Republic of Macedonia)

Author: Vegim Zhaku Co-authors: Hazir.A, Bleron.K, Albert.M, Kushtrim.Z, Gent.B and Muhamedin.R
STATE UNIVERSITY OF TETOVA Faculty of Medical Sciences – General Medicine

OBJECTIVE

-The purpose of our study is to observe the prevalence, from the minimental state examination(MMSE) test and the clock drawing test(CDT), of undiagnosticed people which can progres or suffer from dementia.
- To observe the correlation between age and the probable progress to dementia.
- To see, if level of education, proffesion and social factors, can indicate in apearing of dementia.

MATERIAL & METHOD

Our study is a prospective study worked for 8 months in which are included 600 coincidencial individs, from 6 cities in western part of Macedonia (Kumanovo,Tetovo, Gostivar, Kicevo, Debar and Struga).
As a material for this study were used datas taken from MMSE test and CDT from coincidencial – healthy supossed individs.
From them, 374 (62.33 %) are male and 226(37.66 %) female, with an age average for male 69.4 and for female 68.2 age.

RESULTS

Group age 50 - 59, in 22.66 % of individs the MMSE test was under 25 points, also 18.66 % had problems during drawing the clock.
Group age 60 - 69, in 45.33 % of individs the MMSE test was under 25 points, also 41.33 % had problems during drawing the clock.
Group age 70 - 79, in 69.33 % of individs the MMSE test was under 25 points,also 72 % had problems during drawing the clock.
Group age 80 - 90 years old, in 88 % of individs the MMSE test was under 25 points, also 90 % had problems during drawing the clock.
Four group ages of both sex, in their MMSE test, 56.33 % of them had under 25 points and 55.5% had problems during drawing the clock.

CONCLUSION

From this study that was longer than 8 months and distributed in 6 cities in western part of Republic of Macedonia, we concluded:
1. 56.33 % of individs had never visited neurologist for this problem, and concering MMSE and CDT of this study they suffer from senile dementia.
2. Probability for dementia and cognitive disfunctions increases, within increase of the age.
3. The level of education had big influence in the positivity of results.
4. Correlation betwen profession and the postivity of results, was not concluded.

KEYWORDS
Dementia, Minimental state examination (MMSE) test, Clock drawing test (CDT).

ORAL PRESENTATION SESSION - 6 PUBLIC HEALTH MNO28

PINEAL REGION TUMORS: A 10-YEAR EXPERIENCE IN IRAN

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Clinical Research Center, Milad Hospital, Tehran, Iran
Students' Scientific Research Center, Tehran University of Medical Sciences, Tehran, Iran

OBJECTIVE

Pineal region tumors are quite rare, constituting less than 1% of all primary central nervous system (CNS) tumors in Western countries. This rate however has discrepancy within geographical regions and is in the Northeast Asia as high as 8%. To best our knowledge such report from Middle Eastern countries is not so far available.

MATERIAL & METHOD

We searched Milad hospital's data base –as one of the largest referral hospital in Iran- for patients with pineal region tumor during 2001 to 2011 and recorded their inpatient surgical and medical documents. Finally we contacted them to ask about their survival status as well as any other out-patient therapy for their pineal tumor.

RESULTS

During these 10 years, 1345 patients have undergone a brain surgery or biopsy for brain tumors. Of those, 14 patients (1.04%) had pineal region masses. In 3 cases (28%), brain biopsy was not diagnostic and the other 11 cases had definitive pineal region tumors. Five patients had pineoblastoma, 4 patients had pineal germ cell tumors- 2 germinomas and 2 mixed germ cell tumors- and two cases of gliomas including one astrocytic tumor.

CONCLUSION

Overall 3-year survival rate for patients with pineal tumors was 45% however we couldn't follow 2 patients (18%). Thank to current microsurgery techniques perioperative complications are quiet rare and most of our patients had no serious and irreversible surgery complications.

KEYWORDS

Pineal gland, Brain Neoplasms, Pinealoma

IMPROVING THE ACCESS TO HEALTH CARE OF MIGRANT COMMUNITIES LIVING IN HUNGARIAN RECEPTION CENTERS

Erika Marek, Zoltan Katz, Istvan Szilard
University of Pécs, Medical School, Migration Health Programs, Pécs, Hungary

OBJECTIVE

In 2013 our research group conducted focus-group discussions with representatives of different migrant communities living in Hungarian reception centres. The aim of these focus-group discussions was to explore the migrants' health literacy as well as their opinion of their access to appropriate health services in Hungary in order to establish grounds for improvements.

MATERIAL & METHOD

Altogether twenty-five asylum-seekers were invited to participate at 3 focus-group sessions between 22 April 2013 and 20 June 2013 in the 3 main Hungarian migrants' reception centers: Debrecen, Békéscsaba, Bicske.

RESULTS

Our results have clearly demonstrated significant deficiencies in both their health-knowledge (e.g. signs and symptoms of common infectious diseases, measures of prevention etc.) and also considerable gaps in their awareness of their duties and rights they are entitled during their stay in Hungary. Authors found, that in addition to their posttraumatic-stress disorder (PTSD) due to the root-causes of leaving their home and circumstances of their travel, the fear of their uncertain future triggers anxiety and depression in all asylum-seekers without exception. As reported, since their arrival to Hungary, they had not received any information on their status-dependent rights concerning their access to health care services.

CONCLUSION

These results draw our attention to the current gaps of information and also to the urgent need to handle these controversies effectively, since it is indispensable to successful integration of the migrants to the hosting society. Based on the results of the focus-group discussions reported, a new, health-focused training-program - particularly for migrants- is currently being developed by the authors. This new initiative aims to improve the migrants' access to health care services by informing them about their health-related rights and duties, providing them practical information about the structure of the health care system in Hungary as well as about disease prevention.

This research was supported by the European Union and the State of Hungary, co-financed by the European Social Fund in the framework of TÁMOP 4.2.4. A/2-11-1-2012-0001 'National Excellence Program'.

KEYWORDS

International migration, access to health care, focus-group discussion, reception center, training program

ALLERGIC RHINITIS AND RELATED RISK FACTORS AMONG 12-18 YEAR STUDENTS IN NORTHEAST OF IRAN

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2: Student Research Committee, Mashhad University of Medical Sciences, Mashhad, Iran.

OBJECTIVE
The aim of this study was to evaluate the prevalence and risk factors of Allergic Rhinitis in 12-18 year students in Gonabad, Iran 2011.

MATERIAL & METHOD
This cross sectional study was conducted between April and July 2011 in the city of Gonabad, Iran. Multilevel sampling method was used to select students from all middle and high schools of the city. The International Study of Asthma and Allergies in Childhood questionnaire (ISAAC) was used to gather information on AR. Some potential risk factors for lifetime rhinitis such as sex, season of birth, Family history of atopy, Keeping pet at home, Neonatal feeding, Passive Smoking, living place, mother's and father's age, birth rank and family size were assessed. In univariate analysis, Mann-Whitney U test and chi-Square test were used. Then, forward stepwise multivariate logistic regression was used to calculate adjusted odds ratios (ORs) and 95% confidence intervals (CI) for each variable.

RESULTS
Out of 1627 students, 53.8% were male and mean age of children was 14.5±1.7 years. 550 children (33.8%) had positive history of rhinitis in their life and 28.6% had experienced rhinitis symptoms in the past 12 months. In univariate analysis, Passive Smoking, male sex, family history of atopy, neonatal feeding and family size were associated with AR, while, after adjustment of potential confounders in multivariate analysis, male sex (OR=1.85, 95% CI: 1.48-2.31), family size (OR= 0.93, 95%CI: 0.87-0.99), family history of atopy (OR=1.89, 95% CI: 1.47-2.44) and feeding with cow's milk in neonatal ages (OR=1.58, 95% CI: 1.11-2.24) had significant association with developing AR in any time of life.

CONCLUSION
Male sex, family history of atopy, neonatal feeding with cow's milk could increase the chance of getting AR, while living in large families might slightly decrease it. This study is subject to recall bias. Studies with larger sample size in different areas using more reliable data like birth records can reach more valid results and discover new risk factors for this disorder.

KEYWORDS
Allergic rhinitis, risk factor, children

ANALYSIS OF THE PERINATAL CARE QUALITY INDICATORS IN WIELKOPOLSKA REGION

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OBJECTIVE

The assessment of the quality of medical care during pregnancy, childbirth and postpartum and neonatal period is very important in order to improve the results of perinatal care. Assessment of perinatal care quality indicators can be conducted using different criteria and indicators.
The aim of our study was to assess the perinatal care quality indicators in Wielkopolska during 10 years follow-up.

MATERIAL & METHOD

The study group included pregnant patients admitted to the 35 obstetric wards in Wielkopolska region. The data was collected between January 2002 and December 2012 and located in the polls. The study was conducted retrospectively and was based on questionnaire, which was filled in the obstetric departments every year. The analyzed parameters included: incidence of cesarean sections (CS), forceps and vacuum deliveries, the rate of preterm birth and multiples deliveries, as well as the frequency of deliveries according to the perinatal care level.

RESULTS

The increase of CS rate was observed between 2002 and 2012. The CS incidence increased from 24,2% of deliveries in 2002 to 32% in 2012. The 5-fold rise in the vacuum deliveries was also noticed. Moreover, nearly 1,4-fold decrease in the forceps deliveries rate was found. Furthermore, from 2004 to 2008 the rise in the number of deliveries was observed and after 2008 the slow decrease was noticed again. The increased number of deliveries in the second- and third-degree reference hospitals was also observed. What is more, the number of the premature births fluctuated from 2156 in 2005 to 2431 in 2007. 10-years follow up proved also 1,5-fold rise of the multiple pregnancy rate.

CONCLUSION

During 10-years follow up the increased rate of the cesarean sections was observed. Moreover, the rise in VE and the decrease in FE were also noticed. The increase in the premature deliveries and multiple pregnancies rates resulted in an increase of deliveries in second- and third-degree reference hospitals.

KEYWORDS

Perinatal health care, cesarean section, preterm birth, multiple pregnancies

ORAL PRESENTATION SESSION - 6 PUBLIC HEALTH MNO32

FLUCTUATION IN MEDICAL STUDENTS' GRADES: IMPASSE OF MEDICAL STUDENTS' EVALUATION

Najva Mazhari 1, Reza Ghoreishi 1, Amin Mohamadi 1, Arsia Jamali 1, Parvin Pasalar 1
1 Tehran University of Medical Sciences, Iran University of Medical Sciences

OBJECTIVE

Medical education is an essential investment which aims to support both individual and community health. Considering the importance of this investment, evaluation of short term and long term outcome of this program is essential. Consequently, medical students are evaluated constantly during their semester as well as at certain training points. They are often ranked with the results of these exams and the span of their choices for their professional career often is limited by the results of these exams. However these exams are seldom valid nor reliable. Generally medical students have a lower grad point scores in basic science period than in the rest of their study period. To address this problem we designed a multicenter cross sectional study in tow of largest medical schools of Iran to evaluate consistency in results of various course exams.

MATERIAL & METHOD

Academic records of all medical students in the basic sciences period of medical education (first five semesters) in two medical schools of Iran in 12 consecutive admissions (in six years) were evaluated. Results of deferens courses of study were compared between these two schools and within these schools in different years. We sought ethical approval for our study protocol from the university committee of ethics.

RESULTS

Results of students' exams for 33 courses topics (total 91 credits) for all 2690 students (61%female)of these school was enrolled. In our study, the median results of 6 courses in at least one semester were below 12 out of 20 points (which is considered as failed). The mean score of all (total 33) courses in both two schools had significant difference during these years. ($P<0.001$) Furthermore, only for 5 courses the mean of each year between two schools had no statistical difference. Standard deviation of mean for study courses during these 12 semesters had a range from 0.49 to 2.0 points which the later provided a wide span of mean range for trunk anatomy from 11.05 to 15.54 points.

CONCLUSION

Our findings show that there is an excessive fluctuation in students' grades not only throughout different semesters, but also in different medical schools. It highlights either the education system or the evaluation system is not reliable, resulting in unaccountable training of doctors. It may not contribute solely to the interpersonal variability of medical students during these years while admission criteria, which is a nationwide university entrance exam with a multiple-choices test for both schools and during study years was similar. In conclusion, the seen fluctuations in students' grades in all core courses of basic sciences program for medical education, question the reliability of evaluation system. Although the existing evaluation system is widely used for ranking of medical students, it is not reliable and needs vigorous reform.

KEYWORDS

Medical education, undergraduate, education assessment

ORAL PRESENTATION SESSION - 6 PUBLIC HEALTH MNO33

PREVALENCE OF CHRONIC INJURIES IN GEORGIAN DANCERS

Tsotne Dadiani, Davit Gurgenidze, Ilia Nadareishvili

Davit Tvildiani Medical University, AIETI Medical School

OBJECTIVE

Professional dancing represents one of the most physically demanding activities. The conditions of work and difficult techniques predispose dancers to an injury. Often the injury is severe enough to prevent the dancer from performing for extended period of time. Because dance injuries are consistently under-reported, partially due to fear of dancers losing their jobs, dance injuries and rehabilitation have been difficult fields to study. Despite the fact that Georgian National Dance is claimed to be one of the most stressful and physically demanding dance activities, there is very little research data regarding the related injuries. The aim of the study was to define the incidence and prevalence of dance trauma injuries in Georgian professional ballet dancers, with correlation to such factors as duration and intensity of dancing, gender, age, general health, body type, weight and extrinsic factors; estimate the impact on performance.

MATERIAL & METHOD

An interview-based questionnaire was developed for data collection according to the aims stated. Exact diagnosis and stage of disease were documented. Basic patient sociological data was obtained. A sample of 46 professional and 20 student respondents was selected accidentally. The obtained data was described statistically. Impact on the professional activities was estimated.

RESULTS

It was found that the incidence of trauma during last 12 months was 29 (63%). Among them, most prevalent injuries at the moment of interview were: spine 26 (56%), knee 25 (54%), ankle 8 (17%). Symptoms: contracting pain, exhaustion. Most of the injuries were acute, lasted less than 3 months and were found to affect performance, severely enough to have life impact.

CONCLUSION

Georgian Professional Dancing was found to be an extremely traumatic and stressful activity. Despite the fact that injuries are common among professional dancers, many of them will suffer through their injuries without seeking treatment, because it may have a negative impact on their career. Additional attention is needed to address this issue, and we plan to develop a policy in order to improve working conditions and social insurance for professional dancers.

KEYWORDS: Dance, injury, trauma, professional

May 19th, Monday
16.00-17.00

ISTANBUL FACULTY OF MEDICINE CVS - GENERAL SURGERY - INTERNAL MEDICINE CASE REPORTS

Chairperson: Prof. Dr. Enver Dayıoğlu

TRANSARTERIEL EMBOLIZATION TREATMENT OF INFERIOR EPIGASTRIC ARTER INJURY CAUSED BY PORT ENTRANCE AFTER LAPAROSCOPIC CHOLECYSTECTOMY

Nihat Aksakal[1], Özgül Düzgün[1], Orhan Ağcaoğlu[1], Erhan Çelenk[2], Elif Uysal[3], Gülsün Başak Saygan[3], Umut Barbaros[1], Selçuk Mercan[1]
[1]Istanbul University, Istanbul Faculty of Medicine, Department of General Surgery, Istanbul
[2]Istanbul University, Istanbul Faculty of Medicine, Department of Radiology, Istanbul
[3]Istanbul University, Istanbul Faculty of Medicine, Istanbul

INTRODUCTION: Laparoscopic cholecystectomy is one of the most frequently done operations in general surgery clinics. Complications rates related with the laparoscopic cholecystectomy has decreased in the last years. Most of these complications were associated with veress needle and trocar insertion. In this case, we aimed to present the transarteriel coil embolization treatment of inferior epigastric artery injury.

CASE: A patient who is 61 years old, applied to hospital because of her abdominal pain which has lasted for 3 months. Any pathological signs was not found during the physical examination.Cholecystolithiasis was determined in the abdominal USG of patient who used insulin, oral anticoagulan, beta bloker because of diabetes mellitus, atrial fibrillation, mitral valve replacement, hypertension. After general anesthesia preparations, laparoscopic cholecystectomy was performed with elective conditions. Patient was discharged without any complication the day after surgery. At the 2. day after the surgery the patient had abdominal pain, fatigue; and tenderness and swelling over the right lower quadrant was found in physical examination. The patient's hemoglobin level was found to be low in full blood count. A hematoma which reached from right hypochondriac region to pelvis was detected in computer tomography with contrast. It was determined that the patient had a blood transfusion and patient's hemogram was decreasing in full blood count. Therefore, performing an anjiography to the patient was decided. In angiography, an extravasation from the inferior epigastric arter was detected; for that reason, transarteriel coil embolization was performed to the patient in order to stop the bleeding. The patient was discharged with no complication after the embolization.

RESULTS: Bleeding caused by trocar injury after laparoscopic surgery is a frequent complication. This complication can be prevented by inserting trocars in safe points and observing the entrance points with the transillumination method. In these kind of cases, epigastric artery injury should be taken into consideration as a differantial diagnosis and according to clinical signs, angiographic procedure could be used in diognosis and treatment.

KEY WORDS: Epigastric artery injury, Laparoscopic surgery, Transarterial embolization

SINGLE VENTRICLE PHYSIOLOGY WITH HYPOPLASTIC RIGHT VENTRICLE

Dilara Çelik, Istanbul Faculty of Medicine, Istanbul, Turkey

INTRODUCTION: A single ventricle is an abnormal heart structure that occurs due to abnormal development of the fetal heart during the first 8 weeks of pregnancy. It appears in 5 in 100,000 newborns. There are many types of single ventricles including double inlet left ventricle, hypoplastic left heart syndrome, mitral atresia, tricuspid atresia, and common AV valves with only one well-developed ventricle. It is initially aimed to provide adequate blood flow through the pulmonary circuit and adequate venous return through the both atria in surgical palliation. In this case a newborn with a complete atrioventricular septal defect was described.

MATERIAL AND METHODS: In April 2014, a male neonate with cardiac murmurs in first physical examination was hospitalized for supraventricular tachycardia and treated with iv amiodarone in an outer clinic. Multiple laboratory tests were performed: MCV, MCH, MCHC were slightly elevated (106,5 fl and 38,5 pg and 36,2 g/dl), AST was also elevated (45 U/L), and total bilirubin was mildly elevated (15,4 mg/dl). After arriving to our hospital for further examination and surgical treatment, complete AVSD, hypoplastic right ventricle, aortic coarctation and pulmonary hypertension was diagnosed in echocardiography. Pulmonary banding and resection of the narrow segment of the aorta was planned as initial surgical treatment.

RESULTS: Operation was started under general anesthesia with median sternotomy. The aorta was seen on front location which indicates TGA. Hypoplasia of aortic arch and narrowed pulmonary artery was also realized. Aortic arch was excised and the main pulmonary artery was banded as systemic arterial pressure increasing 10mmHg. After the operation, patient was taken to post-op ICU. Under %60 fiO2 his oxygen saturation was 92 percent with stabile vital findings. Glenn-Fontan procedure was planned as next surgical treatment.

DISCUSSION: Prenatal diagnosis become increasingly important in such cases. With a better diagnose and screening method, a new option may occur for parents: Medical abortus. Besides, early diagnosis allows the doctor to plan a medication before pulmonary hypertension which means the patient would not need one more cardiac operation.

KEY WORDS: Single ventricle, AVSD, TGA, pulmonary HT, Glenn

CORONARY ARTERY BY-PASS SURGERY WITH CABGx7

Türkoğlu Zeynep, Istanbul University Istanbul Faculty of Medicine

INTRODUCTION

Bypass surgery is the most common type of heart surgery. The surgery involves sewing a section of veins(saphen veins) from the leg or arteries(LIMA: left internal mammarian artery or RIMA: right internal mammarian artery) from the chest to bypass a part of the diseased coronary artery. If all these vessels are used and more by-passes are neccessary to maintain the blood flow, it is also possible to use radial arteries. This creates a new route for blood to flow, so that the heart muscle, that needs oxygen to work properly, will get the oxygen-rich blood.
With coronary artery bypass graft (CABG) surgery, a vein or artery, taken from elsewhere in the body is grafted from the aorta (the major blood vessel exiting the heart) onto the coronary artery, beyond the narrowed segment. This new vessel bypasses the diseased section and restores blood flow to the area of the heart muscle supplied by that artery. Multiple grafts may be used if more than one coronary artery is diseased.

CASE

A - 44 years old male patient with stable angina and numerous risk factors (tobacco, obesity, hypertension, high serum cholesterol) was admitted to our facility (İ.T.F Kardiyoloji A.B.D) for a routin evaluation . The non -invasiv stress test (echocardiogram) showed an left ventricular hypertrophy , in addition to normal ejection fraction (75 %) . Sinus rhythm was present.

MATERIAL & METHOD

After stent implantation, the patient was admitted for chest pain on effort. Coronary angiography revealed an intact stent in LAD proximal to mid, with a new site of 90% stenosis in the middle of the RCA 50 % , Cx prox mid 90% ,LAD mid 70% , distal 90% , level S1 D1 branch.

RESULTS

The patient's free and informed consent was obtained. The patient underwent an off-pump CABG and a LIMA-LAD, saphenous vein-D1, radial artery-D2, saphenous-IM, saphenous OM1 and OM2 , saphenous-RCA graft was performed. Intra-operative and post-operative periods were uneventful. The control non-invasive ischemic test demonstrated relief of ischemia and the patient became asymptomatic**.**

CONCLUSION

Bypass surgery of more than four coronary arteries is uncommon, although it can be neccessary for some patients like our case. The 2004 ACC/AHA CABG guidelines state that CABG is the prefered treatment for diseases of all three main coronary vessels (LAD, LCX and RCA).Our patient has multiple narrowed segments in the main three coronery vessels and its' branches. If the patient is diagnosed with ischemic cardiac disease before ischemic cardiomyopathy occures, CABG shoud be prefered instead of cardiac transplantation. It is a complicated prosedure and should be done by experts.

KEYWORDS

CABG , multivessel coroner artery disease , cardiovaskuler surgery

A DiGEORGE SYNDROME CASE WITH AN AORTIC ARCH ANOMALY

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INTRODUCTION: Interrupted aortic arch is a very rare heart defect (affecting 3 per million live births) in which the aorta is not completely developed. There is a gap between the ascending and descending thoracic aorta. In a sense it is the complete form of a coarctation of the aorta. Almost all patients also have other cardiac anomalies. Interrupted aortic arch is often associated with DiGeorge syndrome. **DiGeorge Syndrome** is a syndrome caused by the deletion of a small piece of chromosome 22. 22q11 deletion is also associated with truncus arteriosus. Salient features can be summarized using the mnemonic CATCH-22 to describe DiGeorge syndrome, with the 22 to remind one the chromosomal abnormality is found on the 22 chromosome, as below:

Cardiac Abnormality (especially tetralogy of Fallot)
Abnormal facies
Thymic aplasia
Cleft palate
Hypocalcemia/Hypoparathyroidism.

MATERIAL AND METHODS: In November 2013, a male infant, who was born in 28.08.2013, was brought to the pediatric cardiology with spasm and cyanosis in first physical examination was hospitalized for further investigation. An echocardiography was performed and it was determined that the patient had dilatation of left ventricle, an aneurismatic and tortuous aortic arch, a stenosis in the proximal part of the ascending aorta. His EF was 35%. In the angiography performed, it was determined that there was a stenosis in the level of transverse arch. The left CCA was originated from the ascending aorta and the left subclavian artery was obstructive. The case was evaluated in the council of CVS and pediatric cardiology and the council decided to perform a surgical operation to dilate the stenotic segment of the aorta.

RESULTS: Operation was started under general anesthesia with median sternotomy. The arch of the aorta and the descending aorta were in the posterior of trachea, which indicated an aortic ring anomaly. The left carotid artery was in the proximal of the ascending aorta and in the anterior of trachea. There was e severe stenosis in the aortic segment, in the distal of truncus brachiosephalicus. After the proper cardiopulmoner by-pass, the coarctated segment of the aorta was dilated with a

pericardial patch graft. After the operation, the patient was transferred to the intensive care unit of the department of cardiovascular surgery. After 10 days in the intensive care unit, the general condition and the hemodynamics of the patient was stabilized and he was transferred to the service of the department of CVS. In 26.11.2013 the patient was sent to the department of pediatric cardiology, since he showed no surgical vascular pathology related complications.

DISCUSSION: This is a case with a rare genetic syndrome, which tends to be seen together with aortic and cardiac anomalies. Although the aortic anomaly of this patient was treated successfully, it can be foreseen that this patient will have many health problems due to his condition. Prenatal diagnosis is very important in such cases. A medical abortus is an option for such cases in Turkey, and it should be explained the parents properly. If the parents don't choose medical abortus as a solution, the proper medical care and detailed information should be given to the families.

KEY WORDS: Aortic arc anomaly, aortic ring anomaly, coarctation of aorta, right aortic arc, Di George Syndrome

ISTANBUL FACULTY OF MEDICINE CASE REPORTS MNC07

A MEDICAL CASE OF IRON DEFICIENCY ANEMIA

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INTRODUCTION: Iron deficiency anemia is a condition where a lack of iron in the body leads to a reduction in the number of red blood cells**.** Iron deficiency causes approximately half of all anemia cases worldwide, and affects women more often than men. World estimates of iron deficiency occurrence are somewhat vague, but the true number probably exceeds one billion people. The most significant cause of iron-deficiency anemia in developing world children is parasitic worms. Worms cause intestinal bleeding, which is not always noticeable in faeces, and is especially damaging to growing children. Malaria, hookworms and vitamin A deficiency contribute to anemia during pregnancy in most underdeveloped countries. In women over 50 years old, the most common cause of iron-deficiency anemia is chronic gastrointestinal bleeding from nonparasitic causes, such as gastric ulcers, duodenal ulcers or gastrointestinal cancer.

CASE:A 74-year-old male patient suffering from severe fatigue. Routine blood tests and peripheral blood smear reveal pathological results.The patient is diagnosed with Iron Deficiency Anemia caused by Colon Cancer.

MATERIAL AND METHODS: Patient's first routine blood tests on the 9th of March reveal low hemoglobin(Hb) and low hemotocrit (Hct) values and thrombocytosis. A low vgMean Corpuscular Volume(MCV) is also present. The peripheral blood smear of the patient shows hypochromic and rather small Red Blood Cells(RBCs). A low ferritin blood level is also shown by the lab tests. The patient is administered 10 ampoules of Ferrum intramuscularly and transfused 2 units of erythrocyte suspension. After the initial treatment a second lab test is performed on the 10th of April. The results reveal low Hb and Hct values but increased MCV and Ferritin levels. A unit of erythrocyte suspension is transfused and parenteral Ferrum ampoule treatment is proceeded.

RESULTS: After the treatment carried out has finished, a further increase in hemoglobin value is shown. All the lab tests and treatments are followed by an endoscopy which reveals a carcinoma located in the colon.An appropriate surgical operation is planned for the patient.

DISCUSSION: The initial Lab tests show an iron deficiency anemia. To develop the pathological test results, suitable treatments have carried out. It is important to remember the fact that iron deficiency anemia of adults is most likely to be caused by the abnormalities in the gastrointestinal tract. Discovering the epidemiology of this disease seems to provide permanent relief.

KEYWORDS: Iron deficiency anemia, Hypochromic microcytic anemia, colon carcinoma

ISTANBUL FACULTY OF MEDICINE CASE REPORTS MNC08

CHEMOTHERAPY APPROACH TO LUNG CANCER TREATMENT

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Introduction: In respect to therapeutic purposes, lung carcinoma is classified into two types: small cell lung carcinoma and non-small cell lung carcinoma. Non-small cell lung carcinoma is further divided into three main sub-types: squamous cell lung carcinoma, adenocarcinoma and large-cell lung carcinoma. Adenocarcinoma, which will be discussed in our case study is the most common type of lung cancer seen in women; non-smokers are most often diagnosed with adenocarcinoma in the case of a lung cancer. Adenocarcinoma cell lines derive from atypical, epithelial cells which contain high amount of secretion and mucus within their vacuoles. Small-cell lung cancer has a higher tendency to metastasize with respect to other types and chemotherapy is accepted/offered as one of the best treatment choices for small-cell lung cancer. Non-small cell lung cancer is often prone to be treated surgically.

Case: 67-year old female patient presents with severe coughing and backache. No history of smoking. PET-CT reveal no pathology. The patient is diagnosed with 'pulmonary adenocarcinoma' via percutaneous transthoracic needle biopsy.

Material&Methods: First PET-CT images point out diffuse mediastinal and pulmonary lymph node involvement. Consecutively, 'cisplatin and gemcitabine' are started as initial chemotherapy drug regimen. The patient is evaluated with PET-CT images within variable time intervals. 11 months later, (after the last dosage of chemotherapy is given), the patient presents with lung cancer progression thus palliative radiotherapy is applied in order to relieve the patient's symptoms. After the procedure, Tarceva treatment and its effects on tumor progression are followed by radiography images.

Results: First X-ray images of the patient, show nodular-massive opacities which tend to aggregate in upper, middle and lower lung zones. PET-CT reveals nodular opacities consistent with metastasis. After initiating treatment with Tarceva, slight regression of pulmonary nodules within left lung is observed. Between September 2007 and March 2008, single-agent Gemcitabine maintenance treatment is initiated. However, when chemotherapy is interrupted; brain, lung metastases and tumor progression are seen. Therefore, palliative radiotherapy is applied as a treatment choice. As a result of bleeding skin lesions, pustules, conjunctivitis and hand-foot syndrome due to Tarceva,

treatment is discontinued voluntarily. After discontinuation of Tarceva, X-ray images are taken which reveal progression of metastatic nodules within left lung area and progression of right paracardiac lesions are also apparent. After the onset of progression, patient starts to be treated with 100-150 mg/day Tarceva for a year-period. During one-year period, nodules within left lung become indistinguishable and nearly fully-regressed lesions within right-paracardiac area area also noted.

Discussion: Initial X-ray images belonging to our patient, show diffuse pulmonary and mediastinal lymph node infiltration associated with lung cancer. 2-cycles chemotherapy of 'cisplatin and gemcitabine' are given to the patient which is diagnosed with 'pulmonary adenocarcinoma'. The use of cisplatin and gemcitabine results in minor but significant regression of pulmonary nodules within left lung, which proves the success of therapy in a sense. The use of a 'EGFR-Tyrosine Kinase Inhibitor' Erlotinib (Tarceva) creates considerable side effects which force the patient to quit the therapy. These side effects include bleeding, pustules, skin lesions, and palmar-plantar erythema which affect the patient's life in a very serious and severe way. Despite the side effects of Tarceva use, pulmonary nodules and lesions around right paracardiac area seem to shrink and regress fully. In this case, Tarceva (erlotinib) treatment is considered to be seriously effective in metastatic nodule regression.

Keywords: Adenocarcinoma, EGFR-Tyrosine Kinase Inhibitors, palmar plantar erythrodysesthesia.

POSTER PRESENTATIONS

COMPARISON OF THE EFFECT OF GABAPENTIN , PREGABALIN AND ACETAMINOPHEN IN POST DURAL PUNCTURE HEADACHE

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OBJECTIVE

One of the most common and debilitating complications of spinal anesthesia is post dural puncture headache.

Epidural blood patch is an invasive procedure and its performance needs expertise. On the other hand some patients are not satisfied with its results. Accordingly we decided to examine the effects of Gabapentin, Pregabalin, and Acetaminophen as an effective, safe and easy measure for the treatment of post dural puncture headache.

MATERIAL & METHOD

This study was a prospective blinded study on ninety patients who had undergone elective surgery under spinal anesthesia, and who suffered post dural puncture headache were included in our study. The patients were randomly allocated into one of the three groups; A, B, and C. A bag containing medications and instructions for their use was given to each patient. Patient's headache was evaluated with visual analog scale (VAS) at the onset of the headache, 24, 48, and 72 hours after its onset.

Data were recorded in special forms. SPSS software was used for statistical analysis.

RESULTS

The mean VAS values were less in those who received Pregabalin at all stages of administration of the drug (at the onset, 24, 48, and 72 hours).VAS values were more favorable for Gabapentin group than for Acetaminophen group.

CONCLUSION

Both Pregabalin and Gabapentin are safe and effective medications for the treatment of post dural puncture headache (specially the more severe forms). Meanwhile our results hold that Pregabalin is more effective than Gabapentin.
We suggest performing future studies on the role of these medications for prophylaxis against post dural puncture headache.

KEYWORDS

Post dural puncture headache, acetaminophen, gabapentin, pregabalin

SIMULTANEOUS ELECTROCHEMICAL DETECTION OF DOPAMINE, SEROTONIN AND ASCORBIC ACID

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OBJECTIVE

Dopamine (DA), a ubiquitous neurotransmitter in mammalian brain tissues, and it was found that low levels of DA existed in patients with Parkinson's disease.
Serotonin (5-hydroxytryptamine, 5-HT) is a well-known neurotransmitter that regulates mood, sleep, and anxiety in mammals, as well as alcoholism in humans. Its quantities in plants vary greatly among species and tissues, fruits and seeds having the major tissues in which serotonin occur abundantly. Serotonin stimulates the growth of roots, the germination of both radish seeds. It is implicated in the flowering, ion permeability, and present protective role as an antioxidant.
The importance of ascorbic acid (vitamin C) in several biological processes, and during the last years as active compounds used in several pesticides (L-ascorbic acid is used as a fungicide on potato, glasshouse tomato and field and glasshouse flower bulbs) determined groups of researchers to develop new, rapid and sensitive method for its detection.
Simultaneous measurements of DA, ascorbic acid and 5-HT is important, since them often occur together in different matrices.

MATERIAL & METHOD

Several electrochemical methods were studied in order to detect biological active species. Differential pulse voltammetry was chosen as an optimum and rapid method for detection of dopamine, serotonin and ascorbic acid. There were studied the possibilities of detection using DPV performed on different pH: 5.8; 7 and 7.4 (phosphate buffer).

RESULTS

Each compound was analysed specifically at the potential indicated by the maximum signal appeared during the electrochemical study. Calibration curves were obtained for each reference samples, for the three buffer media.
The compounds were studies separately (standard samples) and in combination (mixture of two or three substances). There were studied the interferences due to simultaneous presence of two or three analytes.

CONCLUSION

Based on these electrochemical studies, new rapid and sensitive methods for detection of dopamine, serotonin and ascorbic acid could be recommended.

KEYWORDS: serotonin, dopamine, ascorbic acid, differential pulse voltammetry

EXPERIMENTAL STUDIES OF ENZYMATIC AND ELECTROCHEMICAL DETECTION OF BIOLOGICALLY ACTIVE COMPOUNDS CONTAINING SULFUR

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OBJECTIVES

The presence of sulfur in the molecules of organic compounds determines different properties, dependent on the chemical structure of functional group. This paper has proposed the application of electrochemical methodes and spectral analyzes of enzyme-based catalysis (in the presence of peroxidase) for the analysis of behaviors of different sulfur compounds.

MATERIAL & METHOD

There were studied and optimized electrochemical methods for detection of cysteine.N-acetyl cysteine and thiourea using screen-printed electrodes. The kinetics of enzyme catalyzed reaction were analyzed using peroxidase-hydrogen peroxide system-3,3'-diaminobenzidine in the presence of various concentrations of the compound.

RESULTS

The results showed different detection possibilities for the analyzed compounds wich gives them an advantage for their concomitant detection from real samples. During the kinetic studies were observed that, in the presence of peroxidase, cysteine had an active behavior, and that thiourea has an inhibited behavior. Differential pulse cyclic voltammetry offer rapid and specific method of detection of compounds containing sulfur.

CONCLUSION

The results indicated the possibilities to detect these compounds in aqueous standard samples and that method can be successfully applied in analyzes of real samples. Studies provided additional data on the mechanisms of action of these compounds on peroxidase systems.

KEYWORDS

Cysteine, thiourea, N-acetyl cysteine, eletctrochemical methods, enzymatic method

APOPTOSIS INDUCING EFFECTS OF FERULA SZOWITSIANA'S EXTRACTS ON HUMAN LUNG CANCER CELL LINE A549

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OBJECTIVE

Cancer chemotherapy remains a major clinical problem and research continues for discovery of new agents in treatment. Among the many types of cancer, lung cancer and especially non-small cell lung cancer is a really challenging disease to treat and does not usually respond to current chemotherapy agents and the only possible way to cure this type of cancer is surgery.
Ferula szowitsiana is a very rare species with small populations which is native to west and middle Asia. F. szowitsiana has been documented as a rich source of sesquiterpene coumarins which are shown to inhibit the growth of human M4Beu metastatic pigmented malignant melanoma cells through cell-cycle arrest in G1 and induction of caspase-dependent apoptosis. Moreover, it has been proven that methanolic extract of ferula szowitsiana root has a great cytotoxic activity against various cancer cell lines whereas the two components (chimgin and chimganin) are responsible, at least in part, for the cytotoxic activity of this plant

MATERIAL & METHOD

In this study, we studied the growth inhibitory and anti-tumor activity of F.szowitsiana using human lung cancer cell line A549. The cells were exposed to methanolic extract of F.szowitsiana at different concentration and for different time durations. Along with morphologic evaluation of the cultured cells, MTT assay were carried out to characterize the cytotoxicity of the extract. Moreover, expression of apoptosis related genes such as bcl-2, bcl-xl, bax, p53 and caspase-9 was studied using reverse transcriptase-QPCR

RESULTS

The observations demonstrated a clear dissimilarity in the population of A549 cells after treating with more than 500 µg/ml concentrations of extract; some morphological changes are also marked; the cells achieved more attenuated architecture. MTT assay results showed a significant cytotoxicity effect in a time and concentration dependent manner (IC50=790 µg/ml). The results of RT-QPCR showed that caspase-9 expression was increased in A549 cells upon exposure to 500 and 800 µg/ml of the extract by almost 3 and 2 folds respectively after 48 hours. Expression of p53 gene in cells treated with concentrations 500 and 800 µg/ml was induced after 48 and 72 hours. Treatment with the extract for 48 hours resulted in increase the level of bax only at the higher concentrations (500 and 800), however after 72 hours of treatment its expression was up regulated even with 200 µg/ml.

CONCLUSION

Collectively, our results, suggest that the F.szowitsiana's methanolic extract has a pro apoptotic effect on human lung adenocarcinoma cell, A549. As evidenced from these preliminary results, this medicinal plant and its bioactive constituents may be considered as attractive alternatives to serve as lead compounds in drug development for human lung cancer as an adjuvant therapy..

KEYWORDS

Ferula szowitsiana, Apoptosis,Lung cancer

POSTER PRESENTATIONS **PP05**

BCL-2:BAX RATIO IN PACLITAXEL RESISTANT MCF-7 BREAST CANCER CELL LINE

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OBJECTIVES

Increasing resistance to paclitaxel limited the efficacy of cancer treatment with paclitaxel. The goal of this study was to establish Paclitaxel resistant MCF-7 cell lines as in vitro model to clarify molecular mechanisms leading to acquired chemoresistance in breast cancer cells. Accordingly, clarifying of drug resistance molecular mechanisms can lead to find new molecules which successfully provide a target for chemotherapeutic agents, diagnostic tests or prognostic markers. Ratio of Bcl-2/Bax in a cell can define determines the susceptibility of a cell to apoptosis.

MATERIAL & METHOD

Paclitaxel resistant breast cancer cell line were developed from the breast cancer cell line, MCF-7, by stepwise increasing exposure dose to Paclitaxel. We choose two resistant cell lines that can survive and grow under the conditions with 5 nM and 64 nM of Paclitaxel (MCF-7/Pac5nM and MCF-7/Pac 64nM cell lines). Expression of Bax and Bcl-2 genes evaluated in this study.

RESULTS

Expression of Bax gene not only decreased on both of MCF-7/Pac5nM and MCF-7/Pac 64nM cell lines compare with parent MCF-7 cell line but also Bcl-2 gene expression increased on them. Bcl-2:Bax ratio was calculated and showed that it was significantly increased Paclitaxel resistant cell lines ($p < 0.001$).

CONCLUSION

Mechanism of resistance to paclitaxel in MCF-7 Pac/64nM and MCF-7 Pac/5nM is related to intrinsic apoptosis pathway. Additional studies on modulators of the Bcl-2/Bax apoptosis pathways such as hormones (i.e. estradiol), chemotherapeutic agents, and genetic background (i.e. p53 status) may be necessary to fully realize the potential of this pathway in cancer diagnosis and therapy.

KEYWORDS

Paclitaxel, chemoresistant, Breast cancer, MCF-7, Bcl-2/Bax

POSTER PRESENTATIONS **PP06**

STUDY ON MORPHOLOGICAL CHANGES IN CARDIAC HYPERTROPHY

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OBJECTIVE

The terminology of congestive heart failure defines the incapacity of the heart to pump enough blood in order to satisfy the needs of the body. From a pathophysiologic point of view, this is a consequence of heart diseases that induces a decrease of cardiac pump function. Heart failure may also be the result of damaged heart valves, pericardial pressure, primary myocardial diseases or any other abnormality that decreases the pump efficiency of the heart. In this context, cardiac hypertrophy is the mechanism by which the heart adapts itself to high load, regardless of whether it is caused by increased pressure against which the heart muscle has to contract or the necessity of increased cardiac output. From this point of view, cardiac hypertrophy has been classified as concentric and eccentric.

MATERIAL&METHOD

This study aims to assess myocardial hypertrophy by histochemical methods, structural observation of pathological changes.

The study was performed by necropsy on ten male cases. In order to obtain favorable results we have followed certain criteria in order to highlight some features considered typical.

In this context, the myocardium hypertrophy was studied by following the amount and distribution of glycogen, lipids and lipofuscin, the last one considered a specific pigment of aged myocardium. We have also used periodic acid Schiff staining (PAS) and the Sudan method.

Histochemical researches have been made on myocardium pieces at necropsy. The sections were stored in Cryostat, the tissues were frozen in liquid nitrogen at -158 ˚ C. Then we went through predetermined stages according to the used technique.

RESULTS

In terms of histopathology, cardiac hypertrophy customizes by some structural characteristics of the cardiac muscle, structural features of cardiomyocytes´ nuclei and morphopathological characteristics of cardiac muscle tissue.

Following this study, we observed in terms of anatomo-pathology, the following:

structural characteristics of cardiac muscle tissue :

-bundles of short muscle fibers, interrupted by connective tissue, fragmentation or rupture of myofibrils

-disorganization of muscle fibers with orientation as specific arrangements

structural characteristics of cardiomyocytes nuclei:

-large size

-specific perinuclear halos

morpho-pathological characteristics of cardiac muscle tissue:

-diffuse fibrosis

-aspect of degenerative muscle structure

CONCLUSION

The histochemical methods used in this study allowed highlighting some anatomo-pathological features of hypertrophied striated cardiac muscle fiber. As noted, the study allowed the analysis and assesment of glycogen storage intensity, the intensity of lipofuscin presence and lipid loading.

The study may go on by applying other techniques that allow obtaining data refering to the metabolism of dehydrogenases and hydrolases, with implications regarding the intensity of enzymatic activities on the structures of cardiac striated muscle type, altered during cardiac hypertrophy as well as studies involving nucleic acids analysis, observing their results on the hypertrophied heart muscle fiber.

KEYWORDS

cardiac hypertrophy, histochemical methods, necropsy, increase in number of cardiomyocytes

EFFECT OF PROBIOTICS ON OXIDATIVE STRESS AND INFLAMMATORY PARAMETERS IN PATIENTS WITH TYPE 2 DIABETES

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OBJECTIVE

The dramatic increase in the incidence of diabetes and its associated complications require a natural and safe solution to control and delay such complications. The present study tested the hypothesis that probiotics may affect some oxidative stress and inflammatory markers of diabetic patients.

MATERIAL & METHOD

Thirty four type 2 diabetic patients aged between 25 to 65 years, and diagnosed with diabetes for less than 15 years were selected for this single- blinded clinical trial. Using balanced block random sampling, the patients were divided into two groups of intervention (probiotics) and placebo. Blood samples tested for baseline malondialdehyde, high sensitive CRP (hs-CRP) and IL-6. After six weeks of experiment, fasting blood samples were re-tested and the data obtained were analyzed using SPSS software.

RESULTS

There were no significant differences between anthropometric data including body mass index and waist to hip ratio in placebo and treatment groups. MDA and IL-6 levels were reduced and high sensitive CRP (hs.CRP) levels were elevated, although, not statistically significant.

CONCLUSION

Overall results of this study indicate a declining trend in the MDA and IL-6 levels after consumption of probiotics. It appears the decrease in these parameters may have effect on decreasing cardiovascular disease risk factors.

KEYWORDS

lactic acid bacteria, probiotic, diabetes, oxidative stress

DOES HERBAL MEDICINES CAN LEAD TO OVARIAN HYPERSTIMULATION SYNDROME?

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OBJECTIVE
Ovarian hyperstimulation syndrome (OHSS) is an iatrogenic complication that occurs in the luteal phase of an induced hormonal cycle. it is supposed to be a complication from some forms of fertility medication.we want to assess the association of herb and OHSS

MATERIAL & METHOD
this is a case series study . 86 married patients were referred to Dr.Rasekh clinic from Aug 2011 to Aug 2012 . A list of Herb are recorded that they are consuming. All patients had a vaginal ultrasound before and after the diagnosis of ovarian hyperstimulation syndrome(OHSS).

RESULTS
The age range between 18-51 years (mean:31).54% of cases didn't have history of infertility ,36.5% were diagnosed with primary infertility and 9.5% with secondary infertility. The Herbal regimes were used by the 86 patients include ;nigrum(pepper) 56%, zingiber officinate(ginger) 30.2%, cinnamomum verum(Cinnamon) 25.6%,thymus vulgaris(Thyme) 19.8%, carum carvi(cumin) 18.6%, matricaria recutita(Chamomile) 15.1% ,thethum graveolens dhi(dill) 14%, corocus sativus (saffron) 14%. Consumption period was from third to eighth day of menstrual cycle for 1 to 4 months. 32(37.2%) patients were normal BMI (18.5-24.09) ,BMI 34(39.5%)patients <18..5, BMI >24.09 in 15(17.4%) patients, BMI >30 in 5(5.8%) patients. Dosage of herbal regimes is One tablespoon(3g) of each of them. 80(93.02%) individuals' consumers of herbal regimes were mild OHSS, 5(5.8%) Moderate OHSS, 1(1.1%)severe OHSS .

CONCLUSION
we concluded that the indiscriminate use of herb can lead to OHSS. Some of patients have been used herb in combination of chemical drugs. We hope to obtain the appropriate dosages of herb that is safe and could be replaced by synthetic drugs with high side effects. Because the patients tend to consume herb a lot .

KEYWORDS
ohss ,herb ,infertility

POSTER PRESENTATIONS **PP09**

AMELANOTIC MALIGNANT MELANOMA OF VAGINA: A DIAGNOSTIC DILEMMA.

1. Dr. Wasif Ali Khan, Assistant Professor, Pathology section, Department of Medicine, Al Maarefa College of Science and Technology, Riyadh, KSA. (Ex-Assistant Professor, Department of Pathology, Grant Government Medical College and Sir.JJ Gr.of Hospitals, India).
2. Zahra Al-Haj Issa, MBBS (Intern), Al Maarefa College of Science and Technology, Riyadh, KSA.
3. Soha Khan, MBBS (Final Year), Al Maarefa College of Science and Technology, Riyadh, KSA.

OBJECTIVE

Malignant melanoma (MM) of the vagina is an extremely uncommon malignancy accounting for less than 3% of all primary malignant tumors of the vagina.1 Amelanotic vaginal melanomas, accounting for only 2% of all vaginal melanomas are exceptionally rare. This tumor does not reveal any melanin pigment which is a histologic hallmark for the diagnosis of malignant melanoma; hence pose a diagnostic challenge in differentiating it from epithelial and non-epithelial vaginal tumors. The management is difficult as they are highly aggressive and optimal treatment strategy is controversial and subject of much debate.2 It is commonly observed in the sixth and seventh decades of life indicating predominance in postmenopausal women. There are very few case reports of its occurrence in young adults including one of the cases diagnosed by us. Majority of the patients present with complaints of vaginal bleeding and in many cases the disease is usually locally advanced at the time of initial presentation.3 We report two cases of vaginal amelanotic MM, one in a young female and other in a post-menopausal elderly patient, with similar radiological, histological and immunohistochemical features.

MATERIAL & METHODS

A 20 year old female presented in the Gynecology department with complaints of foul smelling vaginal discharge and amenorrhea of 2 months duration. Per speculum examination revealed an unhealthy, necrotic, foul smelling, fragile growth on the post wall of vagina. Per- vaginal examination showed a cauliflower growth arising from post wall of vagina. The routine hematological investigations revealed Hb of 10 .6 gm%. All other hematological parameters and biochemical investigations were within normal limits. βHCG level was < 1.2 IU/ml. HIV/ HBsAg / VDRL were negative. Chest roentgenogram was unremarkable. USG of pelvic region demonstrated uterus of normal size and echotexture. Both the ovaries were not visualized clearly. A 6.2x6.1x4.3 cm sized heterogenous mixed echogenic irregular lesion was noted in the vagina, replacing cervix and pushing the uterus upwards. Fat planes with adjacent structures were well maintained. There was no evidence of any lymphadenopathy or any organomegaly. MRI of pelvis showed a 5.3x5.3x4 cm sized well defined, lobulated mass arising from posterior wall of vagina extending up to posterior fornix. Superiorly it was displacing uterus upwards. Inferiorly it was reaching up to the introitus. No parametrial involvement was seen. Uterus, bilateral ovaries and bladder were normal. There was no free fluid in pelvis. There was no evidence of any peritoneal deposits, scalloping of liver or spleen or any focal lesion in solid viscera. An impression of ''features suggestive of neoplastic etiology'' was given by the imaging specialist.

Histologic examination of both the cases showed malignant spindled to epithelioid cells with marked variation in size and shape. Tumor cells were arranged in fascicular and storiform patterns. The cells showed nuclei with distinct nucleoli and frequent atypical mitotic figures. The mucosa overlying the tumor was ulcerated. There was no evidence of any junctional activity or melanin pigment. Based on these histologic features a differential diagnosis of malignant mesenchymal tumor or poorly differentiated carcinoma was considered and immunohistochemistry was undertaken to rule out and confirm the diagnosis. Immunomarker panel of CK , EMA, Desmin, SMA, CD31, CD34 and p63 were negative, which ruled out the above mentioned differential diagnoses, leading to a diagnostic dilemma. After more consultations and taking into consideration the prominent nucleoli, a typical feature observed in MM, a panel of markers comprising S100, HMB-45 and Melan A was performed, which turned out to be distinctly positive, paving the way for the final diagnosis of amelanotic malignant melanoma of vagina. Detailed physical examination did not reveal any suspicious neavi or any abnormal area of hyperpigmenatation leading to a final diagnosis of primary amalenotic malignant melanoma of vagina.

RESULTS

Amelanotic MM of the vagina is exceedingly rare, with very few cases reported in the world literature. The incidence of primary vaginal MM is more common in Japan as compared to both Europe and America which may be because of different race.4 Demonstration of melanin pigment in an anaplastic tumor with or without junctional activity and prominent nucleoli readily clinches the diagnosis of MM. Absence of melanin pigment in amelanotic MM which is an unusual variant of MM, pose a diagnostic challenge. It frequently mimics carcinoma or sarcoma; hence immunohistochemistry is vital in arriving at the correct diagnosis because any delay will lead to grave prognosis and drastically reduces the life span of the patient.

The Immunohistochemical markers like S100, HMB-45 and Melan A are very useful in the diagnosis of MM, with S100 considered to be the most sensitive marker.5
Several treatment options are available but none of them are considered to be a standard approach. Several authors recommend surgical resection as the preferred choice of therapy. Different surgical methods such as wide local excision, radical surgery (total vaginectomy with or without vulvectomy), and pelvic extenteration have been recommended depending upon the extent of invasion. However there is controversy whether to subject patient to radical procedures since some authors have shown no survival benefits as compared to more conservative surgical procedures.6,7 Chemotherapy and radiotherapy have also been administered in some cases with limited success.

CONCLUSION

We present two rare cases of amelanotic MM of the vagina, one occurring in young female and other in a post-menopausal female, both of them were initially thought to be either carcinoma or sarcoma, but subsequently correctly diagnosed by panel of immunohistochemical markers like S-100, HMB-45 and Melan-A.
Although extremely rare, amelanotic MM should be considered as one of the differential diagnosis in an undifferentiated malignancy of female genital tract and IHC markers for the diagnosis of MM must be included in the panel for evaluation of such cases.

KEYWORDS

Amelanotic, melanoma, vaginal malignancy, immunohistochemistry

POSTER PRESENTATIONS **PP10**

AMELANOTIC MALIGNANT MELANOMA OF VAGINA: A DIAGNOSTIC DILEMMA.

1. Dr. Wasif Ali Khan, Assistant Professor, Pathology section, Department of Medicine, Al Maarefa College of Science and Technology, Riyadh, KSA. (Ex-Assistant Professor, Department of Pathology, Grant Government Medical College and Sir.JJ Gr.of Hospitals, India).
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OBJECTIVE

Malignant melanoma (MM) of the vagina is an extremely uncommon malignancy accounting for less than 3% of all primary malignant tumors of the vagina.1 Amelanotic vaginal melanomas, accounting for only 2% of all vaginal melanomas are exceptionally rare. This tumor does not reveal any melanin pigment which is a histologic hallmark for the diagnosis of malignant melanoma; hence pose a diagnostic challenge in differentiating it from epithelial and non-epithelial vaginal tumors. The management is difficult as they are highly aggressive and optimal treatment strategy is controversial and subject of much debate.2 It is commonly observed in the sixth and seventh decades of life indicating predominance in postmenopausal women. There are very few case reports of its occurrence in young adults including one of the cases diagnosed by us. Majority of the patients present with complaints of vaginal bleeding and in many cases the disease is usually locally advanced at the time of initial presentation.3 We report two cases of vaginal amelanotic MM, one in a young female and other in a post-menopausal elderly patient, with similar radiological, histological and immunohistochemical features.

MATERIAL & METHODS

A 53 year old post-menopausal female came with complaints of foul smelling vaginal discharge and something coming out of the vagina of 3 months duration. Per vaginal examination showed a large proliferative growth invading lower anterior part, posterior and lateral wall of vagina. Bilateral parametria were thickened. Per rectal examination revealed a firm mass in the anterior wall of rectum. Routine hematological and biochemical investigations were unremarkable. USG of pelvic region demonstrated uterus of normal size and echo-texture. A 7.2x5.1x4.3 cm sized heterogenous mixed echogenic irregular lesion was noted in the anterior wall of vagina, replacing cervix and pushing the uterus upwards. There was no evidence of any lymphadenopathy or any organomegaly.
MRI of pelvis showed a 6.3x4.3x3.5 cm sized ill defined mass arising from anterior wall of vagina extending up to posterior fornix. Superiorly it was displacing uterus upwards. Inferiorly it was reaching up to the introitus. No parametrial involvement was seen. Uterus, bilateral ovaries, bladder were normal. There was no free fluid in pelvis. There was no evidence of any peritoneal deposits, scalloping of liver or spleen or any focal lesion in solid viscera. Similar impression of ''features suggestive of neoplastic etiology'' was given by the radiologist.

Histologic examination of both the cases showed malignant spindled to epithelioid cells with marked variation in size and shape. Tumor cells were arranged in fascicular and storiform patterns. The cells showed nuclei with distinct nucleoli and frequent atypical mitotic figures. The mucosa overlying the tumor was ulcerated. There was no evidence of any junctional activity or melanin pigment. Based on these histologic features a differential diagnosis of malignant mesenchymal tumor or poorly differentiated carcinoma was considered and immunohistochemistry was undertaken to rule out and confirm the diagnosis. Immunomarker panel of CK , EMA, Desmin, SMA, CD31, CD34 and p63 were negative, which ruled out the above mentioned differential diagnoses, leading to a diagnostic dilemma. After more consultations and taking into consideration the prominent nucleoli, a typical feature observed in MM, a panel of markers comprising S100, HMB-45 and Melan A was performed, which turned out to be distinctly positive, paving the way for the final diagnosis of amelanotic malignant melanoma of vagina. Detailed physical examination did not reveal any suspicious neavi or any abnormal area of hyperpigmenatation leading to a final diagnosis of primary amalenotic malignant melanoma of vagina.

RESULTS

Amelanotic MM of the vagina is exceedingly rare, with very few cases reported in the world literature. The incidence of primary vaginal MM is more common in Japan as compared to both Europe and America which may be because of different race.4 Demonstration of melanin pigment in an anaplastic tumor with or without junctional activity and prominent nucleoli readily clinches the diagnosis of MM. Absence of melanin pigment in amelanotic MM which is an unusual variant of MM, pose a diagnostic challenge. It frequently mimics carcinoma or sarcoma; hence immunohistochemistry is vital in arriving at the correct diagnosis because any delay will lead to grave prognosis and drastically reduces the life span of the patient.
The Immunohistochemical markers like S100, HMB-45 and Melan A are very useful in the diagnosis of MM, with S100

considered to be the most sensitive marker.5
Several treatment options are available but none of them are considered to be a standard approach. Several authors recommend surgical resection as the preferred choice of therapy. Different surgical methods such as wide local excision, radical surgery (total vaginectomy with or without vulvectomy), and pelvic extenteration have been recommended depending upon the extent of invasion. However there is controversy whether to subject patient to radical procedures since some authors have shown no survival benefits as compared to more conservative surgical procedures.6,7 Chemotherapy and radiotherapy have also been administered in some cases with limited success.

CONCLUSION

We present two rare cases of amelanotic MM of the vagina, one occurring in young female and other in a post-menopausal female, both of them were initially thought to be either carcinoma or sarcoma, but subsequently correctly diagnosed by panel of immunohistochemical markers like S-100, HMB-45 and Melan-A.
Although extremely rare, amelanotic MM should be considered as one of the differential diagnosis in an undifferentiated malignancy of female genital tract and IHC markers for the diagnosis of MM must be included in the panel for evaluation of such cases.

KEYWORDS

Amelanotic, melanoma, vaginal malignancy, immunohistochemistry

A CRITICAL FUNCTION OF TRANSFORMING GROWTH FACTOR-B FOR IN-VITRO DRIVING HUMAN TH17 LYMPHOCYTES

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OBJECTIVE
Interleukin 17 (IL-17)–producing T helper 17 cells (Th17 cells) have been described as a T helper cell subset distinct from T helper type 1 (Th1) and Th2 cells, with specific functions in antimicrobial defense and autoimmunity. The factors driving human Th17 differentiation remain controversial. The aim of this study is to evaluate the function of polarizing factors (IL-1β, IL-6 and IL-23) and especially the role of TGF-β for in-vitro human Th17 development.

MATERIAL & METHOD
Naïve CD4+ T cells were isolated from peripheral blood samples and cultured either in X-VIVO 15 serum-free medium or RPMI 1640 containing 10% FBS. Purified cells were treated with different combinations of polarizing cytokines (TGF-β1, IL-1β, IL-6 and IL-23) and neutralizing anti-IFN-γ and anti-IL-4 antibodies followed by analysis of the expression of RORC, FOXP3, GATA-3 and TBX-21 genes and their relevant cytokines by real-time quantitative RT-PCR and Flowcytometry, respectively.

RESULTS
We found that transforming growth factor-β (TGF-β), interleukin 23 (IL-23) and proinflammatory cytokines (IL-1β and IL-6) were all essential for human Th17 differentiation. Transforming growth factor-β was critical for expression of IL-17A and RORC and in the absence of TGF-β, expression of IL-17A and RORC were decreased.

CONCLUSION
Our results shed new light on the regulation of human Th17 differentiation and a critical role of TGF-β for development of Th17 responses.

KEYWORDS
Th17, TGF-β, Proinflammatory Cytokines, Differentiation

PULMONARY ASPERGILLOMA IN AN AIDS PATIENT: AN UNUSUAL CASE REPORT

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OBJECTIVE

Pulmonary apsergilloma,is typically presented as a growing mass in a pre-existing pulmonary cavity due to emphysema, carcinoma or prior tuberculosis. Apsergillus infections are unusual in patients with acquired immunodeficiency syndrome-(AIDS), but, are much more common in other immunosupperessed populations, such as, that undergoing solid organ transplantation, especially lung transplantation.

MATERIAL&METHOD

We report a case of pulmonary aspergilloma in a 63 year old bisexual man diagnosed with AIDS in 2010 (CD4 cell count 14 cells/ml and polymerase chain reaction-human immunodeficiency virus-(PCR-HIV) counted 431125 copies). Since the diagnosis was made he was put on an antiretroviral therapy with lopinavir-ritonavir, tenofovir, lamivudine. The patient smokes 40 cigarettes per day. Prior the diagnosis of AIDS he had history for two hospitalizations due to bronchopneumonia together with chronic cystitis and nephrolithiasis. Two years after the diagnosis patient was admitted to our hospital with no symptoms for further routine investigation.

RESULTS

The control urine culture due to chronic cystitis grew M. morganii. Adequate antibiotic treatment was started. CD4 cell count was 71 cells/ml or 4,9%. The initial chest radiograph showed right apical annularly shaped dark shadowed cavity with peripheral halo consistent with the diagnosis of aspergilloma. Computed tomography scan revealed aspergilloma. Bronchoscopy and bronchoalveolar lavage-(BAL) were peformed. Bronchoscopy showed locally inflamed area of the right upper lobe with small quantity of glassy* secret. Histopathological analysis of BAL found: Aspegillus hyphae, Candida hyphae and Cryptococcus hyphae which were consistent with mixed pulmonary mycosis. Cultures were positive for C. albicans only. Pulmonary aspergilloma was diagnosed based on clinical and histopathological findings. The patient during his stay was also treated with fluconazole for candida infection and trimetoprim-ketoconazole, as a preventive combination. Then the patient was discharged on oral itraconazole, which has resulted with good disease control. Nor progression of the disease was found in the control chest radiography neither positive cultures for Aspergillus were detected.

RESULTS

Clinical suspicion should alert specialist to consider aspergilloma as a differential diagnose in a patients with AIDS although it is not common, but unusual situation. The treatment should be made in a concordance with the clinical appearance and laboratory findings for each individual separately.

KEYWORDS

aspergilloma, infection, human immunodeficiency virus, acquired immunodeficiency syndrome

A NOVEL ARCHITECTURE FOR ELDERLY CARE MANAGEMENT INFORMATION SYSTEMS (ECMIS)

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OBJECTIVE

Organization of health care service is depended to the effective performance of elderly care management information system (ECMIS).

MATERIAL & METHOD

In this article, first a comprehensive proposal model is provided and then documents are recorded by scenario. Hypothetical data are used for optimizing the resources and the model finally examined and validation based on organization true data.

RESULTS

The concepts of "success" and "failure" and the issues that caused to create them were examined and studied. First, during the process of ECMIS, a mutual transformation occurs between organization and technology. In order to transform the organization, ECMIS should be considered strategically. Second, the effective performance of central management and future users to support this process is significantly important. And finally, balance between beginning organizational shifts and MIS as a change agent derived from implementing MIS exactly without control and foreseeing. It may be difficult to accept and also draw upon this inevitable uncertainty.

CONCLUSION

It is obvious that supplying of more appropriate services and more diverse in large quantity with better quality and lower cost, except with the use of scientific management is not possible. Creative and dynamic management needs to information for timely decision making.

KEYWORDS

Elderly, Management Information System, Architecture

TUBERCULOUS BRAIN ABSCESS IN A PATIENT WITH PEMPHIGUS VULGARIS

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OBJECTIVES

Central nervous system tuberculosis (CNS TB) is uncommon in developed countries, still constitutes in developing countries. Tuberculoma and meningitis are common manifestation of CNS TB. Brain abscess is rare presentation of CNS TB, first case has been reported in 1930. Histologically and clinically, these abscesses are similar to pyogenic brain abscesses. We are reporting such a case here.

MATERIAL & METHOD

Patient was a 67 years old man, known case of pemphigus vulgaris under treatment of prednisolon and cellcept from 6 month ago.that with chief complaint of weakness and decreased level of consciousness admitted in our Hospital. He had a history of chronic productive cough , night sweating ,weakness and weight loss from 2 month ago. A positive Acid fast bacillus (AFB) sputum smear (+++) 4 days before admission was reported and Anti TB has been started.Past medical history of patient indicated pulmonary tuberculosis in his son which has been received anti TB therapy.In physical examination, patient was non oriented and had pale conjunctiva and diffused coarse crackles in both of lungs, Systolic murmur in heart auscultation and a 5*6 cm cold abscess in medial portion of thigh were detected. He had not got lateralization sign in neurologic examination. Also, vital signs were as follows: BP=100/60mmHg, PR=100 per min, RR=20 per min T=39.5˚C axillary, O2 Sat=93% in room.Laboratory tests, Sepsis work up, Brain CT scan with and without contrast and Cardiologist consult for rule out of endocarditis were done for patient. In lab tests Anti Toxo Ab (IgG,IgM) and Anti HIV Ab were reported negative.Patient expired 1 month after than adimition.

CONCLUSION

In patients with brain abscess consideration of TB as differential diagnosis specially in immunosuppressed patients and close contacts of TB help us to better manage of treatment.

KEYWORDS

Tuberculous, brain abscess, pemphigus vulgaris

EFFECT OF DESICCATION ON INTERACTION OF MULTIDRUG-RESISTANT ACINETOBACTER BAUMANNI AND FREE-LIVING AMOEBAE

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OBJECTIVE

Acinetobacter baumannii, is an important emerging hospital-acquired pathogen and is recognized as one of the the most difficult multidrug-resistant bacteria to control and treat. A. baumannii ability to survive under a wide range of environmental conditions and to persist for extended periods of time on surfaces makes it a frequent cause of intrahospital infection. The protozoa, especially amoebae, serve as natural reservoirs or vehicles for dissemination of several pathogenic bacteria but little is known about the interaction of free-living amoebae and A. baumannii. The aim of this study was to examine the survival of multidrug-resistant A. baumannii on a dry plastic surface and to test its ability of adhesion on free-living amoebae, Acanthamoeba castellanii.

MATERIAL & METHOD

Bacterial strains used in this study were A. baumannii multidrug – resistant strain ATCC BAA-1605 and drug-sensitive strain ATCC 19606, as well as 4 clinical isolates (strains 771, 53154, 56781 and 54531). Bacterial inoculums were prepared in sterile tap water and 6 x 20 µl of bacterial suspension (~108 cfu/ml) were deposited in 96 wells plates and dried for one hour under laminar flow hood. At various intervals, the bacteria was rehydrated in sterile tap water and plated on LB agar to determine the number of viable bacteria. Bacterial viability was assessed with the Bacterial Viability Kit LIVE/DEAD® BacLight™ dying before fluorescent microscopy. At the same time, A. baumannii isolates exposed to desiccation were added to A. castellanii monolayers and bacterial adhesion after 2 hours were tested.

RESULTS

The results showed that all A. baumannii strains, regardless of the antibiotic resistance, survive 100 days on dry plastic surfaces. Also, all A. baumannii strains exposed to desiccation were able to interact with amoeba A. castellanii up to 30 days.

CONCLUSION

In conclusion, multidrug-resistant A. baumannii strains survive long period of time in dry conditions and are able to interact with amoeba. These results might have important implications for the role of amoeba in A. baumannii epidemiology. So, in hospital environment, special attention should be paid to the presence of free living amoebae and A. baumannii.

KEYWORDS: Acinetobacter, desiccation, survival, free-living amobae

ANTMICROBIAL ACTIVITY OF DIFFERENT CROATIAN HONEY AGAINST MULTI-DRUG RESISTANT ACINETOBACTER BAUMANNII

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OBJECTIVE

Antibiotic resistance of bacteria is on the rise, thus the discovery of alternative therapeutic agents is urgently needed. Acinetobacter baumannii is an opportunistic pathogen that usually infects immunocompromised individuals through open wounds, catheters and breathing tubes. Multi-drug resistant A. baumannii has emerged as a major cause of nosocomial infection. Honey possesses therapeutic potential, including wound healing properties and antimicrobial activity. Although the antimicrobial activity of honey has been effectively established against an extensive spectrum of microorganisms, it differs depending on the type of honey. The objectives of this study were to test the antibacterial activity of 17 types of Croatian honeys against multi-drug resistant Acinetobacter baumannii.

MATERIAL&METHODS

Using a broth dilution method, the antibacterial activity of 17 different types of honeys (3 samples of sage honey – Salvia officinalis L., 4 samples of honeydew – 3 fir honeydews (Abies alba Mill) and 1 maple honeydew (Acer spp.), chestnut – Castanea sativa Mill., locust tree – Robinia pseudoacacia L., lime tree – Tilia spp., indigo bush – Amorpha fruticosa L., rape seed – Brassica napus L., maple – Acer spp., mint – Mentha spp. and polifloral autum and spring meadow honeys) was evaluated against 6 strains of A. baumannii. The used strains were: multi-drug resistant strain ATCC BAA-1605 and drug sensitive strain ATCC 19606, as well as 4 clinical isolates (drug sensitive strain 771, and drug resistant strains: 53154, 56781 and 54531). Different concentrations of honey (0,025 mg/mL – 0,4 mg/mL) were tested against each bacterial strain. The minimum inhibitory concentrations (MIC) were determined by visual inspection as the lack of visual turbidity followed by evaluation of minimum bactericidal concentration (MBC). MBC was determined as no growth of bacteria after culturing on blood agar.

RESULTS

Our results showed that the MICs of different honeys ranged from 0,025 mg/mL to 0,4 mg/mL. The lowest MIC value of 0,025 mg/mL was obtained for fir honeydew honey (sample 3), 0,05 mg/mL for fir honeydew honey (sample 4), mint honey and polifloral autum meadow honey against multi-drug resistant A. baumannii ATCC BAA-1605 as well as against clinical drug resistant strains. The lowest MBC value of 0,05 mg/mL of honeydew honey (sample 3) was also showed against multi-drug resistant A. baumanii ATCC BAA-1605 as well as against clinical drug resistant strains.

CONCLUSION

This result suggests that fir honedew honey, mint honey and polifloral autum honey could potentially be used as an alternative therapeutic agent against A. baumannii wound infection. However, this approach needs to be further studied.

KEYWORDS: honey, Acinetobacter, antibiotic resistance

ANTI – LEGIONELLA ACTIVITY OF SELECTED PLANT ESSENTIAL OILS FROM CROATIA

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OBJECTIVE

Legionnaires disease is one of the most common cause of hospital and community acquired atypical pneumonia. Legionella are Gram negative facultative intracellular bacteria and may grow in hot spring water and hot water outlets of hospitals, hotels and private apartments. With increasing awareness of legionellosis associtaed with spa and bathtubs, regular clean - up and disinfection becomes essential. In addition to superheating and chlorine disinfection, antibacterial agents extracted from a variety of plants have been increasingly evaluated. A variety of essential oils, the natural mixtures of volatile compounds extracted from plants, show biocidal effect on bacteria, fungi, viruses and protozoa. The aim of this study was to determine the in vitro anti - Legionella activity of 5 different plant essential oils from Croatia.

MATERIAL&METHOD

Using a broth dilution method, the antibacterial activity of 5 different plant essential oils (Immortelle spring and autum oil – Helichrysum arenarium, Sage oil -Salvia officinalis, Laurel oil – Laurus nobilis and Juniper oil – Juniperus communis) against different L. pneumophila and L. longbeachae strains were tested. Different concentrations of plant essential oils (25,6 µg/mL – 0,025 µg/mL) were tested against each bacterial strain. The minimum inhibitory concentrations (MIC) were determined by visual inspection as the lack of visual turbidity and minimum bactericidal concentration (MBC) as well as no growth after culturing on BCYE agar.

RESULTS

The results showed that L. pneumophila and L. longbeachae are sensitive to all tested essential oils, but the best antibacterial activity was demonstrated with Immortelle spring essential oil, with minimal inhibitory concentration (MIC) of 0,4 µg/mL and 0,1 µg/mL and a bactericidal activity at 0,8 µg/mL and 3,2 µg/mL.

CONCLUSION

Our results suggest that Immortelle spring essential oil possess strong anti - Legionella activities, and have a great potential to be used as a disinfectant agent in control of legionellosis associated with spa facilities.

KEYWORDS Legionella, plant essential oil, antimicrobial activity

SYMPTHOMATOLOGY OF DISTURBED VAGINAL FLORA AS BACTERIAL VAGINOSIS AND INTERMEDIATE FLORA AMONG WOMEN OF REPRODUCTIVE PERIOD

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OBJECTIVE
Bacterial vaginosis (BV) is one of the most frequent disorders of vaginal ecosystem in women during their reproductive life. The main complaints of women with symptomatic BV include vaginal discharge and odour. However, a significant number of all women deny symptoms. The aim of this study was to evaluate symptoms present among women in reproductive age with diagnosed BV and to compare them with those present in group with normal vaginal flora.

MATERIAL & METHOD
Vaginal specimens were collected from a total of 75 women, presenting with or without the symptoms of vaginitis. Diagnosis of BV was done using Nugent's scoring system. The patients were divided into three groups: BV (diagnosed bacterial vaginosis), IF (intermediate flora) and NF (normal flora).

RESULTS
The results showed statistically significant difference in two symptoms: increased vaginal fluid [BV (65.6%); NF (25.7%); IF (50%)] and increased symptoms following sexual activity [BV (46.9%); NF (5.7%); IF (37.5%)]. Statistically significant difference was also seen comparing the frequency of increased vaginal fluid among women with disturbed and normal flora [DF (62.5%); NF (5.7%)] and the frequency of increased symptoms following sexual activity [DF (45%); NF (6%)].

CONCLUSION
The main symptoms in examined women of reproductive age were increased vaginal fluid and increased symptoms following sexual activity. These symptoms were found more frequently among women with disturbed vaginal flora compared with women with normal vaginal flora.

KEYWORDS
bacterial vaginosis, symptoms, diagnosisbacterial vaginosis, symptoms, diagnosis

INCIDENTAL PRIMARY PAPILLARY MUCINOUS ADENOCARCINOMA OF THE RENAL PELVIS IN A CASE OF NON-FUNCTIONING KIDNEY DUE TO CHRONIC PYELONEPHRITIS AND PELVIC CALCULUS: REPORT OF A RARE ENTITY.

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OBJECTIVE

Primary mucinous adenocarcinoma is an extremely rare primary epithelial tumour of the renal pelvis and ureter with approximately 100 cases reported in the world literature.(1,2)

We report a case of an incidentally detected primary mucinous adenocarcinoma of the renal pelvis in non-functioning kidney secondarily to chronic pyelonephritis and renal pelvic calculus. Although the tumour is extremely rare, it is essential for the pathologist, urologist and imaging specialist to be aware of this entity and a careful search should be performed to rule out any neoplastic growth in relation to long standing renal calculus. However, a primary adenocarcinoma originating elsewhere should be excluded. Radiological studies may not be able to identify a malignant tumour as happened in our case.

MATERIAL & METHODS

A 45 year-old male presented with intermittent right hypochondriac pain of three years duration. On physical examination, there was tenderness in the right hypochondrium on deep palpation. There was a past history of repeated urinary tract infections. Laboratory investigations showed high serum creatinine (2.5 mg/dl) and serum uric acid level (80.6 mg/dl), indicating non-functioning kidney. Urine was turbid and routine urine analysis showed numerous pus cells. Pelvic roentgenogram showed a renal pelvis calculus. Ultrasonography of pelvic region showed pyonephrosis and a calculus of size 2 x 2 x 1 cm in the renal pelvis. Tc99m-DTPA renal scintigraphy showed right obstructive uropathy with extremely impaired renal function. The provisional clinical diagnosis was non-functioning right kidney due to pyonephrosis secondary to obstructive uropathy. The patient underwent right nephrourectomy, during which 200 ml of thick pus was drained from the kidney. On gross pathological examination, the kidney measured 15 x 7 x 2.5 cm. The renal capsule was adherent to the cortical surface, which showed irregular scars. The pelvicalyceal system was dilated with thinning of cortex and loss of cortico- medullary differentiation. Pelvis showed a greyish white polypoid growth measuring 2 x 2 x 1 cm along with a stone of size 2 x 1 x 1 cm. Microscopic examination revealed a tumour comprised of papillary and glandular pattern lined by single layer of columnar epithelium with scattered goblet cells resembling intestinal mucosa. Mitoses were infrequent. Abundant extracellular mucin was noted. Stroma was thin fibrovascular with chronic inflammatory infiltrate. The tumour cells were infiltrating into the muscle coat. Adventitia was unremarkable (Figure no-1-3). Residual renal parenchyma showed features of chronic pyelonephritis (Figure no-4). Mucicarmine stain showed magenta coloured goblet cells in the lining epithelium (Figure no-5-6). The ureteric resection margins were free from tumour. Subsequently, a CT scan of chest and abdomen was performed

and there was no evidence of any primary mucinous adenocarcinoma elsewhere leading to secondary in the renal pelvis; lymphadenopathy and metastatic foci. Hence, a final diagnosis of incidental primary mucinous adenocarcinoma of renal pelvis in a case of non-functioning kidney due to chronic pyelonephritis and pelvic calculus was made. The tumour was staged as T2 N0 M0. At one month post-operation, the patient was asymptomatic.

RESULTS

Tumours of the renal pelvis are extremely uncommon. The most common tumour is transitional cell carcinoma comprising 90% of cases followed by squamous cell carcinoma in 10% of cases and adenocarcinoma which is observed in only 1% of cases is the least common. Adenocarcinomas are further subdivided into i) tubulovillous, ii) mucinous, and iii) papillary non-intestinal categories.(3) Special stains like mucicarmine confirms the intestinal nature of lining epithelium. Most of the patients are asymptomatic. Haematuria is the most common presenting sign while loin pain and palpable abdominal mass signifies a late stage. Radiological studies may not be able to identify a malignant tumour as happened in our case. These tumours occur as a result of metaplasia of the transitional epithelium of the calyces and pelvis into glandular epithelium, which then undergoes a malignant transformation.(4) According to some authors, formation of the calculi, might be the result of over secretion of glycoproteins by the tumour and its binding with cations such as sodium, calcium, and magnesium, forming larger calculi. Thus, calculi may not be the cause of the neoplasm.(4)

Local recurrence due to both spillage of tumour cells during surgical manipulation and downward seeding in the distal ureter has been reported. So a radical nephrectomy and complete removal of the ureter are the preferred surgical treatment.(5)

CONCLUSION

Although the primary mucinous adenocarcinoma of renal pelvis is extremely rare, it is highly imperative for the pathologist, urologist and imaging specialist to be aware of this entity and a diligent search should be performed to rule out any neoplastic growth in relation to long standing renal calculus. If detected pre-operatively, timely management in the form of radical nephro-urectomy may improve prognosis in such cases.

KEYWORDS

Incidental, primary, mucinous adenocarcinoma, renal pelvis, renal calculus, metaplasia, nephro-urectomy

INTERACTION BETWEEN DOPAMINERGIC AND OPIOIDERGIC SYSTEMS IN DORSAL HIPPOCAMPUS IN MODULATION OF FORMALIN-INDUCED OROFACIAL PAIN IN RAT

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OBJECTIVE

Hippocampus is one of the most important regions of brain which has several functions including learning, memory and pain. Dopaminergic system which acts through D1- and D2-like receptors interfere in pain modulation while opioid receptors has substantial role in analgesic processes. To our knowledge there isn't any evidence to clarify interplay of them at the level of dorsal hippocampus on orofacial pain. In the present study, we tried to find out the interaction between opioidergic and dopaminergic systems in dorsal hippocampus (CA1) region on formalin-induced orofacial pain.

MATERIAL & METHODS

Two guide cannulae were stereotaxically implanted in CA1 region, and morphine (0.5, 1, 2 and 4 µg/0.5µl saline) as opioid receptor agonist, naloxone (0.3, 1 and 3 µg/0.5µl saline) as opioid receptor antagonist, SKF-38393 (1 µg/0.5 µl saline) as a D1-like receptor agonist, quinpirole (2µg/0.5 µl saline) as a D2-like receptor agonist, SCH-23390 (0.5 µg/0.5 µl saline) as a D1-like receptor antagonist and sulpiride (3 µg/0.5 µl DMSO) as a D2-like receptor antagonist or vehicles were administered. For induction of orofacial pain, 50 µl of 1% formalin was injected into the left side of the upper lip subcutaneously.

RESULTS

Different doses of morphine significantly reduced the first and second phases of formalin-induced orofacial pain. These effects were reduced by naloxone. Additionally, SKF-38393 and quinpirole could significantly reduce the formalin-induced orofacial pain in both phases and also, naloxone could significantly suppress the antinociceptive responses of mentioned agonists ($P<0.05$). On the other hand, SCH-23390 didn't have any effects on antinociceptive response of morphine neither in the first phase nor second phase, whereas sulpiride reversed the antinociceptive effects of morphine only in the first phase, but it was not significant ($P>0.05$).

CONCLUSION

There is a cross-talk between the opioidergic and dopaminergic systems, and although the antinociceptive effects of dopaminergic agents acted through opioidergic neurons, dopaminergic system could partially affect the antinociceptive response of morphine in the rat's dorsal hippocampus

KEYWORDS

Orofacial Pain; Hippocampus; Opioid receptor; Dopamine receptor; Formalin test; Rat

IMPACT OF EDUCATION REGARDING PROPER NUTRITION ON BODY MASS INDEX (BMI) AND SERUM ALBUMIN IN HEMODIALYSİS PATIENTS

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OBJECTIVE

When the renal patient approaches the end-stage of the disease and needs to be dialyzed, malnutrition is an inevitable consequence of dialysis. The objective of this study was to evaluate the effectiveness of proper nutrition education on body mass index (BMI) and serum albumin in hemodialysis patients.

MATERIAL & METHOD

A clinical trial study was carried out among 75 patients by random sampling method. They were referred to different adult renal and dialysis units of Nemazee Hospital in a six-month period and were educated by educational workshops and pamphlets. The demographic data were recorded based on questions and answered by the patient's visitors. Also, the anthropometric data (BMI) and biochemical tests (Albumin) were recorded in the questionnaire by direct measuring through Seca meter. The Paired t-test was used for data analysis.

RESULTS

The mean age of the patients was 52.3±11.2. %64 of the patients were male and %68 of them were literate. The mean BMI before education was 21.6 2.3 vs. 22.8 2.5 after education (p-value=0.015). The mean Albumin before and after education were 3.6 0.5 vs. 4.2 0.8 (p-value=0. 001).

CONCLUSION

This study indicated that education on nutrition in renal-dialysis patients can significantly increase the serum Albumin and would lead to weight gain.

KEYWORDS

Nutrition Education, Body Mass Index (BMI), Albumin, Dialysis

ASSESSMENT OF ASSOCIATION OF DIETARY PATTERNS AND INDICATORS OF DISEASE ACTIVITY IN PATIENTS WITH RHEUMATOID ARTHRITIS

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OBJECTIVE
Appropriate dietary pattern plays an important role in the management and treatment of rheumatoid arthritis. Accordingly, the present study aimed to investigate the association between dietary patterns and indicators of disease activity in patients with rheumatoid arthritis.

MATERIAL&METHODS
This cross-sectional study was conducted on 102 patients with Rheumatoid Arthritis attending to Rheumatology Clinic of Ahvaz Aria Hospital in 2012.Data were collected using demographic, anthropometric and semi-quantitative food frequency (FFQ) questionnaires. CRP and RF levels were also measured in fasting blood samples. Analysis of collected data was performed by SPSS version 17 and using independent t test, analysis of covariance and multivariate linear regression analysis.

RESULTS
In this study, three major dietary patterns were identified: the healthy dietary pattern, Western and High-Protein. After adjusting for confounding variables, healthy dietary pattern was associated with lower body mass index, waist circumference, pain intensity and C-reactive protein levels($P<0.05$). In contrast, the Western dietary pattern has a positive correlation with body mass index, waist circumference, body fat percentage and pain intensity ($P<0.05$). In High-Protein dietary pattern, Individuals in highest tertile reported significantly less pain.($P=0.007$)

CONCLUSION
Follow a healthy dietary pattern which includes lots of fruits, vegetables, beans, garlic, olives and nuts, causes improvement of disease condition in patients with rheumatoid arthritis.

KEYWORDS Dietary pattern, rheumatoid arthritis, inflammation, factor analysis

CHOROIDAL OSTEOMA

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OBJECTIVE
To present a clinical picture and management of a case with choroidal osteoma.

INTRODUCTION
Choroidal osteoma is a rare disease with an unknown etiology which is more common in women. It is usually encountered in the second or third decade of life. It involves both eyes in 25% of cases. There is no known treatment.

Case report: 19-year-old girl was presented in our institution with progressive loss of vision in the right eye (VOD: 3/60). She had no previous history of systemic or eye disease.

Fundus examination showed well demarcated yellow-white peripapillary lesion with macular involvement. Fluorescein angiography demonstrated early hyperfluorescence with intense late staining. OCT showed severe macular edema with accumulation of subretinal fluid and choroidal neovascularization.

Echographic changes showed high reflective choroidal mass which persisted at lower scanning sensitivity.

There were no changes in the left eye.

The patient received three intravitreal injections of Avastin which slightly improved her visual acuity (VOD: 0.1).

CONCLUSION
Even though there is no specific treatment available for choroidal osteoma, intravitreal application of anti-VEGF may improve visual acuity.

KEYWORDS choroidal osteoma, anti-VEGF

ACUTE RUPTURE OF M.PECTORALIS MAJOR IN PROFESSIONAL SPORTSMEN : IS THERE A RELIABLE TREATMENT OPTION

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OBJECTIVE

To evaluate mini-invasive technique of reattachment of pec.major muscle in professional sportmen; advantages for faster return in competitive sports

MATERIAL & METHODS

For the period 2010-2013 we operated 5 male patients with ruptured m.pectoralis major. Mean age is 32 and the youngest patient was 24 years. All had a violent traumatic moment. First exam is made 24-48 h after injury. Clinical presentation was severe pain, limited movements and deformation of the area.
We perform mini-invasive technique to reattach the tendon, with 5.5 .mm anchor (Corc screw, Artrex), to its insertion point on the humerus. Combining general anesthesia with supraclavicular block has significant post-operative analgesia. Average surgery time 40min.

RESULTS

Average patient hospitalisation was 2 day. There was no general complications as severe pain, inflammation or bleeding. The advantages of this technique <: short post-operative rehab, return active abduction-on the 4 th week, go back to competitive sports- 3 months.

CONCLUSION

The rupture of the m.pectoralis major in young and active patients is not very common and in most of the cases is a result of sport trauma and more specifically- weight lifting. Patients reported for traumatic moment during a “bench press” or some other violent contraction of the muscle. They are always with high requirements for the results and want to get back to sport activities as soon as possible.
Mini-invasive technique is reliable option for patiens with high requirements .Sutur anchors provide strenght and secure insertion of m.pectoralis major. Short operative time and fast recovery are benefit than clasical open transosseous sutures or graft reinforcement.

KEYWORDS

rupture, m.pectoralis major, anchor ,mini-invasive technique

BOXER'S FRACTURE: THE BENEFITS OF MINI-INVASIVE TREATMENT

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OBJECTIVE

To compare mini-invasive technique with traditional open surgery

MATERIAL & METHOD

Fracture of the neck of the fifth metacarpal bone (Boxer`s fracture) is a very common injury.In most of the cases fractures are comminute. It is a result of direct force in most of the cases a closed –fist striking of firm object. Patients reported for traumatic moment sever pain, tenderness, snapping sensation and limited movements and deformation of the area. They are always with high requirements for the results and want to avoid immobilization and the youngest patient was 18 years. All had a violent traumatic moment. First exam is made 24-72 h after injury. Clinical presentation was severe pain, limited movements and deformation of the area.

We perform mini-invasive technique percutaneous transverse K-wire pinning. We use dorsoulnar entry points, to avoid extensor lesion, on the head of fifth metacarpal bone and insert two crossed K-wires (1.8-2.2mm.). Thickness of the K-wire depends on gender of the patient and his anatomical structure. We use RIVA, because of its significant post-operative analgesia. Average surgery time 20 min.

On the 30-35 day we make a control x-ray and if there is a full bone healing we remove k-wires.

RESULTS

Average patient hospitalization was 1 day. There were no general complications as severe pain, inflammation or bleeding or secondary displacement of the bone. The advantages of this technique are: immediate ROM, short post-operative rehab, return to its normal condition -45 day.

CONCLUSION

Mini-invasive technique is reliable option for patients with high requirements who don't want to be immobilized. K-wires provide strength and secure fixation. Short operative time and fast recovery are benefits than plate stabilization.

KEYWORDS

boxing fracture, fifth metacarpal, mini-invasive, percutaneous, K-wire

CLINICAL CONDITION OF THE CHILDREN AND ADOLESCENTS AT THE TIME OF DIAGNOSIS OF TYPE 1 DIABETES MELLITUS IN 2006-2011 – SUCCESS OR FAILURE OF PEDIATRICIANS?

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OBJECTIVES

Diabetes mellitus (DM1) is one of the most common childhood disease with the onset characterized by sudden occurrence of typical symptoms: polyuria, polidypsia, weight loss and often diabetic ketoacidosis (DKA) due to chronic hyperglycemia and acute deficiency of insulin. Patients with DM1 have more often than in general population autoimmune diseases including polyendocrinopathies which can be present at the time of diagnosis. Aims: 1. The profile of patients' clinical condition at the time of DM1 diagnosis. 2. To determine the prevalence of coexisting diseases at the time of DM1 diagnosis.

MATERIAL&METHOD

The retrospective analysis of 523 patients age 1 month to 18 years (the mean age 9,6 years) with DM1 diagnosed in 2006-2011. To determine clinical condition there were taken into account: nutritional status, dehydration status, blood pH, levels of: glucose, HbA1c, HCO3-, K+, Na+ and phosphates in blood, the presence of glucosuria and acetonuria and also coexisting of diseases diagnosed before or during DM1 diagnosis.

RESULTS

Clinically significant dehydration (5-10%) was present in 48% of patients, mean dehydration degree defined by weight deficiency was (-) 4,58%. Glucosuria and acetonuria were present in 85% and 78% respectively of patients; DKA in 29,17% (including 7,5% of severe DKA). The mean pH was 7,35 (SD 0,117); glycaemia 26,44 mmol/l (SD 12,24), HbA1c 11,54% (SD 2,46), HCO3-- 17,56 mmol/l (SD 6,88), K+ 4,6 mmol/l (SD 0,64), phosphates 1,45 mmol / l (SD 0,36), Hypernatraemia (Na> 143mmol/l) was diagnosed in 8,3% of patients, after adjusting it in relation to hyperglycemia, patients with hypernatremia were up to 43.2%. On the basis of the presence of anti-TPO antibodies, high level of TSH and low level of fT4 Hashimoto's disease was diagnosed in 1,34% of patients. In 0,96 % of patients on the basis of the presence of endomysial antibodies and histological small intestine mucosa examination celiac disease was diagnosed. In 3,8% of patients with DM1 newly diagnosed, obesity was revealed, in 3,05% tonsillar hypertrophy, in 2,1% asthma, in 1,14% epilepsy.

CONCLUSION

1. Early diagnosis of DM1 is still a problem for pediatricians and GPs what is reflected by high frequency of DKA, high glycaemia and HbA1c in patients at the time of DM1 diagnosis.
2. The occurrence of obesity shouldn't delay DM1 diagnosis, however its frequency in the group of patients with newly diagnosed DM1 is 2 times less than in general population.
3. Knowledge of the presence of Hashimoto's disease or celiac disease in patient can help in making an early diagnosis of DM1.

KEYWORDS

diabetes, clinical condition, coexisting diseases

PREPARATION OF A SIMPLE PHOSPHOLIPIDS-BASED NANO CARRIER FOR INTRAVENOUS DRUG DELIVERY

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OBJECTIVE

In recent years, significant efforts have been devoted to using the potentials of nanotechnology in drug delivery, since it offers the possibly of site-specific and/or time-controlled delivery of small or large molecular weight drugs and other bioactive agents. Phospholipids offer many advantages for prepare of drug delivery carrier owing to their biocompatibility as well as biodegradability and their amphiphilice nature the aim of this study was to prepare novel phospholipids-base new carrier for drug delivery purpose.

MATERIAL & METHOD

Preparation of phospholipids-base nano carrier was performed by involving a organic phase (ethanol) and a aqueous phase (water). The optimum conditions of phospholipids-base nano carrier generation had determined in this method. The lecithin solution was added to water (1:20) in drop wise manner (40ml/h)at room temperature.

RESULTS

By regard of results of optimization of several parameters which were showed that some parameters are most effective in preparation process. In this experiment the z-average of particle size of the optimized phospholipids-base nano carrier was about 120 ± 10 nm with good reproducibility and narrow size distribution with a PDI<0.2.

CONCLUSION

At last, this method was optimized for preparation with considerably less experimental effort, greater precision, and facilitated system modeling

KEYWORDS

Phospholipids, nanotechnology, nano carrier, lecithin

EFFECT OF ALTHAEA OFFICINALIS MUCILLAGE ON WOUND HEALING

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OBJECTIVE

Repair is a natural reaction to injury which results in restoration of tissue integrity. In this study the healing effect of marshmallow was investigated on exissinal skin wound of rabbit.

MATERIAL & METHOD

Althea flower mucilage ointment (with concentration of 5%, 10%, and 15%) prepared from dried powder. New zeland rabit of either sexes were wed during the study. Method of cross et all (1995) was ased to make full thickness wounds. The animal were devided in to 6 groups: the first was left without treatment, the second group was treated with eucerin, in the third group phenytoin ointment 1% was used and in other group, different concentration of Althaea Mucillage (5%, 10%, 15 w/w) in eucerin were appliedtopically. The area of wound wound surface extrapolated.

RESULTS

Histological studies were performed on the 7th day and last day of treatment (an complation of wound closure) compleat healing whit in 15 days.In Althaea group 5%, 10%, 15 wound repair was aboserved whit in 16,17 and 14 days respectively. However the course of healing by 15% Althaea Mucillage was 14 days which is 1 day shorther than 1% phenytoin.Significant difference of Althaea Mucillage maybe more effective in proliferation phase. Perhaps it is able to stimulate the fibroblast and myofibroblast and proudaction of collagen fibres by these cell for the faster closure of wound.

CONCLUSION

The mechanism of Althaea Mucillage in wound healing cannot be explained from the presense study it merits further detailed investigations for its clinical evaluation and the details of mechanism of action However more studies are required ton elucidate the enact mechanism of Althaea Mucillage in wound healing

KEYWORDS

Wound,Skin, Mucillage, Althaea flower, Rabbit

POSTER PRESENTATIONS **PP29**

RAPID TESTS, IMMUNOASSAY AND BIOSENSORS FOR DETECTION OF AFLATOXINS

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OBJECTIVE

Mycotoxins are produced by a number of different fungi, and can be present in different of food (cereal grains, herbals, oil seeds, dried fruits, apple juice, wine and meat products) and animals feed. Because many mycotoxins are highly resistant at high temperature (food processing), they could enter on the food chain and provide a several adverse to human health. In aflatoxicosis decrease in liver function, changes of the blood clotting mechanism, icterus (jaundice), and a decrease of the concentration serum proteins were indicated by scientific literature.

MATERIAL & METHOD

The work contains two parts, trying to indicate the level of knowledge about the topic of mycotoxins in people from Romania and Italy, and also to identify some possible rapid ways for detection of aflatoxins from different matrices.

1. Students from Faculty of Food and Tourism from Transilvania University of Brasov (group 1), Erasmus students in Romania (group 2), coaches and judges of the Italian Federation of Sports Twirling and Secondary School Teachers from Italy, customers of pharmacies from Varese and Milan (Italy) were asked to provide data about their information related to the topic of mycotoxins.

2. There were experimental tested different classic and modern analytical procedures for qualitative and (semi)quantitative detection of aflatoxins B1 from different matrices.

RESULTS

The information concerning the sources of mycotoxins, their health effects, possibility of prevention, sources of information about the topic of mycotoxins were compared for the four groups studied. The differences between the groups were explained taking into account the differences of ages, education and location.

The analytical performance of thin layer chromatography, electrochemical detection using acetylcholinesterase based biosensors, ELISA and rapid test for detection of aflatoxin B1 were compared.

The rapid test indicated in a short time the general presence of aflatoxins and semi-quantitative information. Specific softs indicated quantitative data. Mutants of acetylchlinesterase used for biosensors and ELISA increase the specificity of detection. There were identified different possibilities to apply this method.

CONCLUSION

The level of knowledge of different groups indicated that most of the people have knowledge about the topics of mycotoxins, but they request in the same time more details because the sources of information about their adverse effects are limited or incomplete.

Depending on the aim of the available technique in didactical and research labs, there are several detection methods that could help for detection of aflatoxins from different matrices, with application on toxicology.

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KEYWORDS: Aflatoxins, rapid tests, biosensors, ELISA, questionnaire.

STUDY ON POSSIBLE WAYS OF CONTAMINATION WITH MYCOBACTERIUM TUBERCULOSIS OF HEATLHCARE WORKERS(HCWS) EMPLOYED IN SPECIALIZED MEDICAL UNITS

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OBJECTIVE

Tuberculosis is a disorder which is caused by an infection with Mycobacterium tuberculosis. It can occur at certain individuals due to conditions caused by certain factors that predispose to the disease. The medical personnel can be also affected due to permanent contact with sick patients. From this point of view the screening of potential infection with Mycobacterium tuberculosys of the medical staff employed in specialized medical units can be a useful method.

In this context, the factors that contribute to a possible contamination with Mycobacterium tuberculosys can be mentioned as beeing related to individual conditions as well as conditions related to its social status.

Following the idea of this study and taking into consideration the major impact of the infection caused by Mycobacterium tuberculosys on the health of the individual, it is important to know and to apply special protection measures in order to reduce the risk of contamination.

MATERIAL&METHOD

This study aims to highlight some possible ways of contamination with Mycobacterium tuberculosys and to evaluate the risk of infection of HCWs employed in specialized medical units.

This study was made possible by using a questionnaire with predetermined questions that were addressed to medical personnel employed at a specialized ambulatory. The questions of the questionnaire were related to the importance and application of specific and useful protection measures in order to reduce the risk of illness. Also according to the questions contained in the questionnaire and based on the aim of this study, it is envisaged the establishment of a computerized database in order to monitor the potential infections with Mycobacterium tuberculosys of HCWs employed in specialized medical units.

RESULTS

Due to the fact that this study aims to reveal some pathways of contamination with Mycobacterium tuberculosis, the results refer to the three ways of contamination: by air, digestive and trans-cutaneous.

Analizing the responses of each HCW employed at a specialized medical unit where the study was done, the results were evaluated in percentage. This was possible considering the knowledge of the rules for protection against infection with Mycobacterium tuberculosys, the application of special procedures against Koch bacillus infection and their application every time .

In this context, the results of this study were systematized as references in percentage for the three distinct pathways of contamination with Mycobacterium tuberculosys.

From this point of view, regarding the transmission pathway by air, it has been considered the percentage of knowledge of the rules for protection against infection transmitted by air, the rate of application of the rules for protection against infection transmitted by air and the percentage of each time application of the rules for protection against the infection transmitted by air.

The results of the study on contamination of Mycobacterium tuberculosys by digestive pathway were stated as a percentage, taking into account the percentage of knowledge of the procedures to protect against gastrointestinal infection transmission, the percentage of application of the rules for protection against gastrointestinal infection and the percentage of each time application of the rules for protection against gastrointestinal infection transmission.

The results of the study on contamination with Mycobacterium Tuberculosys by trans-cutaneous pathway were stated as a percentage, taking into account the percentage of knowledge of the procedures to protect against dermal transmitted infection, the application rate of the rules for protection against dermal transmitted infection and the percentage of each time application of the rules for protection against dermal transmitted infection.

CONCLUSION

This study has revealed that the training of HCWs was not performed efficiently, in order to provide useful knowledge to reduce the risk of contamination with Mycobacterium tuberculosis. Therewith it was noticed that the information owned by the investigated HCWs regarding the pathways of contamination as well as the possible settlement of the infection with Mycobacterium tuberculosys, was found to be incomplete, which contributes to a possible risk augmentation of latent or active forms of tuberculosis among employees.

KEYWORDS

contamination with Mycobacterium tuberculosis, protection measures, questionnaire, computerized database, results systematized as references in percentage, pathway, augmentation of tuberculosis

POSTER PRESENTATIONS **PP31**

OBESITY AND WEIGHT PERCEPTIONS IN TURKISH COLLEGE STUDENTS

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OBJECTIVE

The purpose of this study was to investigate obesity and weight perceptions in a sample of Turkish college students. Participants (N = 276) completed a questionnaire to assess their current weight status, ideal body type, and weight satisfaction. Statistical analyses showed significant differences in body weight perceptions between young men and women. Findings may help inform behavioral health interventions targeted toward this age group.

MATERIAL & METHODS

Participants consisted of 276 students, aged 18 years or older, at one of four universities in Istanbul (N = 82), Ankara (N = 69), Izmir (N = 82), or Konya (N = 43). Each was asked to complete a questionnaire regarding their health and attitudes. Relevant sections from the questionnaire included the following:

1. Demographic information
2. Body weight satisfaction and body size preferences (Stunkard et al., 1983)
3. Dietary information (Berkeley Nutrition Services: Fat, Fruit, Vegetable, & Fiber Screener)
4. Questions regarding “The Obesity Prevention and Control Program”

RESULTS

Participants (N = 276) ranged in age from 18 to 27. 112 participants were male with a mean age of 21.13 (SD = 1.76). 164 participants were female with a mean age of 20.36 (SD = 1.29).
The body mass index of males ranged from 15.70 to 43.24 with an average of 23.46 (N = 112, SD=3.77). The body mass index of females ranged from 15.22 to 46.06 with an average of 21.41 (N=164, SD = 3.37).

CONCLUSION

• Women were more likely to report a preference for a smaller body type than their current status (62.18%) as compared to males (47.06%). This was statistically significant at $p < 0.05$.
• 58.93% of males and 51.83% of females reported being fairly unhappy or very unhappy with their weight.
• Women (42.69%) were more significantly likely than men (32.15%) to report being overweight ($p < 0.05$).
• Women (53.05%) were significantly more likely than men (33.93%) to report wanting to lose weight ($p < 0.05$)
Studies in the United States suggest that low levels of physical activity and high prevalence of unhealthy diets exist in college students (Huang et al., 2003). The college years are highly influential in shaping adult behaviors, particularly with regard to diet and physical activity (Desai et al., 2009). Longitudinal research shows that obesity in late adolescence tends to persist into adulthood. Identification of risk factors may increase understanding of weight loss barriers and facilitate treatment of obesity in young adults.

KEYWORDS

obesity, health, lifestyle behaviors

RELATIONSHIP OF HIJAB WITH QUALITY OF LIFE, A CASE CONTROL STUDY

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OBJECTIVES

Quality of life involves many aspects including physical health, psychological, environment and social relationships. It is affected by the way women dress in the society. Thus, we aimed to investigate the effects of Hijab on different dimensions of life quality.

MATERIAL & METHOD

This was a case control study that was conducted on 200 students of Hormozgan University of Medical Sciences in 2013. Data were collected using WHOQOL-BREF which evaluates the quality of life in 4 domains (Physical health, psychological health, social relationships and environment). Data was analyzed by SPSS v.19 using descriptive statistics and independent sample t test and a p value below 0.05 was considered as significant.

RESULTS

In this study, 200 students were enrolled. The mean score of Physical health, psychological health, social relationships and environment were 75.11±11.79, 66.52±13.81, 69.67±18.24 and 62.87±12.41, respectively (among those who had incomplete hijab), while the scores were 77.4±10.13, 70.16±11.47, 73.68±15.44 and 66.64±10.61 respectively. The difference between mental health domain and environment were significant (p=0.047 and p=0.025, respectively)

CONCLUSION

The results of this study showed that students who were veiled had an increased quality of life. However, further studies must be carried out in order to confirm the results and to determine the factors that are associated with their quality of life.

KEYWORDS

Quality of Life, Clothing, Young Adult

POSTER PRESENTATIONS **PP33**

REDUCED LYMPHOCYTOPHENIA FOLLOWING STEREOTACTIC BODY RADIATION THERAPY (SBRT) FOR SPINE METASTASES COMPARED WITH CONVENTIONAL RADIATION THERAPY (CRT)

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OBJECTIVES

Both CRT and SBRT are frequently used in the management of patients with spine metastases. Radiation therapy (RT) to the spine is associated with hematologic toxicity including lymphocytopenia. The purpose of this study is to compare the rate and duration of lymphocytopenia following CRT and SBRT.

MATERIAL&METHODS

119 patients with spine metastasis treated with either CRT or SBRT were retrospectively reviewed. Complete blood cell counts (CBC) were recorded before treatment and at approximately 0, 2, and 6 months post RT. Use of decadron and cytotoxic chemotherapy were noted. Mean total lymphocyte counts (TLC) were calculated at each time point and between group comparisons of mean TLC were performed using non-parametric T-tests. A Kaplan Meier survival analysis was performed.

RESULTS

Sixty-six patients treated with either AP/PA or 3 field conformal techniques (median prescription dose=30 Gy, range=6-37.5; median fx=10, range=1-20) and 53 patients treated with SBRT (median prescription dose=21 Gy, range=6-30; median fx=3, range=1-6) were analyzed. 66% of the SBRT group and 64% of the CRT group had received prior cytotoxic chemotherapy (p=0.841, Pearson Chi-Square). 63% of the SBRT group and 47% of CRT group had received prior radiotherapy to primary and/or metastatic sites (p=0.141). Glucocorticoid therapy was used in 35% of SBRT patients and 53% of CRT patients prior to treatment (p=0.061) and in 15% of SBRT and 50% of CRT patients following treatment (p=0.001). The mean TLC (cells/ □l) pri treatment was similar between groups (SRS=1006.7, CRT=1227.5, p=0.31, T-test). Compared to this baseline, mean TLC at 0, 2, and 6 months following SBRT were 758.9 (p<0.01), 963.1 (p=0.45), and 1102.6 (p=0.82), respectively. Corresponding values were 534.1 (p<0.01), 602.4 (p<0.01), and 662.0 (p<0.01), respectively, for patients treated with CRT. Mean TLC varied significantly between the SBRT and CRT groups at 2 mo. (p=0.007) and 6 mo. (p=0.006). There was no significant difference detected in MS or OS at 2 years between the SRS and CRT groups (MS 8.8mo vs 6.4mo, Log Rank p=0.405; OS 27.4% vs 22.5%).

CONCLUSION

These data suggest a significant reduction in the magnitude and duration of iatrogenic lymphopenia following SBRT compared to CRT in a heavily pre-treated population. This relationship merits prospective evaluation as it may have implications on ability to tolerate future chemotherapy or OS as suggested in prior analysis in other disease sites.

KEYWORDS

lymphocytopenia,SBRT,CRT

ELECTIVE THREE-DIMENSIONAL MONO-ISOCENTRIC CONFORMAL RADIOTHERAPY IN BREAST CANCER: A CASE REPORT

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OBJECTIVE

Several treatment modalities such as: surgery and radiotherapy, chemotherapy, targeted therapy and hormone therapy are included in the breast cancer treatment. Radiation therapy is an integral part of the treatment after conservative breast surgery.

The aim of the study was to present the three dimensional conformal mono-isocentric postoperative radiotherapy (3D-MI-CRT) following breast conserving surgery, routinely performing at the University Clinic of Radiotherapy and Oncology in Skopje, throughout comprehensive case report presentation.

MATERIAL&METHOD

After realization of conservative surgical intervention on the left breast with the ipsilateral axillary dissection in a 64 years old female patient, determination of the pTNM=pT3, pN1, pM0, G2 (stage: IIIA) and conduction of the adjuvant chemotherapy, patient underwent elective radiotherapy of the breast and supra- and infra-clavicular region.

RESULTS

Computed tomography (CT) simulation without contrast was used and patient was positioned on breast board in the supine position with both hands raised above the head which was centrally located with slice preparations of 5 mm. The clinical borders of the field (upper, lower, lateral and medial) and the central section of the tangential fields were marked with lead markers. The breast tissue was marked with lead wire. The isocenter was set by an experienced oncologist right on the junction between the supraclavicular field and the tangential field during the simulation and after 3D reconstruction according to the patient configuration. The planned target volume (PTV) of the breast included the glandular parenchyma marked with the wire with an additional margin of 1 cm while the heart and ipsilateral lung were excluded. The planned target volume for evaluation (PTV-EVAL) was defined excluding 5 mm of the superficial skin surface. Additionally we contoured the supra and infra-clavicular ipsilateral lymph nodes (SCLN, ICLN). The total prescribed dose was 50 Gy with standard fractionation regimen and a daily dose of 2 Gy. Two parallel opposed fields with 2 wedge filters of 15 and 20 degrees per field and multilief collimator were chosen respectively. The angles of beams, angles of filters and weight ratio were used appropriately to optimize the PTV coverage, but also to minimize the radiation dose in the ispilateral lung, heart and contralateral breast.

CONCLUSION

Verification of the plan was based on the dose volume histogram (DVH) in which the mean dose realized in PTV-EVAL was 101.3% (range 82.1-108.5) on SCLN was 101.3% (range 86.6-105.2) and ICLN was 89.1% (range 84.2-95.5). V20 for the isilateral lung was 15%.The radiation dose in heart and spinal cord was insignificant. Consistently to our results the treatment should be made in a concordance with the findings for each individual separately.

KEYWORDS

Radiotherapy, breast cancer, conservative surgery;

THE INFLUENCE OF B VITAMIN COMPLEX ON PHYSICAL ACTIVITY OF STUDENTS

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OBJECTIVES

The main purpose of our research is to determine mechanism of the influence of B vitamin complex on physical activity of students.

MATERIAL & METHOD

Theoretical literature review. Empirical research of physical activity by evaluation of the given examination (K. Cooper's test). Sociological research (questionnaires, interviews).

RESULTS

By K. Cooper test performance of the experimental group exceeded the level of physical activity in the control group at a definite rate. Using as an additional component of B vitamin complex showed that the level of physical activity of the experimental group increased, which is higher than the control group.

CONCLUSION

Revealed that levels of physical activity of the experimental group improved. It is shown that the highest results of subjects who engaged in regular exercises is also used as an additional component the B vitamin complex. Found that B vitamin complex also has a beneficial effect on improving sleep quality, increase endurance, it was revealed by the empirical and sociological research.

KEYWORDS

Sports medicine, B vitamin complex, physical activity of students

POSTER PRESENTATIONS **PP36**

THE RESULTS OF RESEARCH AMONG SOUTH KAZAKHSTAN REGION CHILDREN AND ADOLESCENTS ON THE CAUSES OF DENTAL DISEASE

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OBJECTIVE

To identify the main causes of dental disease among children and adolescents in South Kazakhstan region.

1. To monitor the prevalence and intensity of major dental diseases among children and adolescents in South Kazakhstan region from 2009 to 2013.
2. To examine the factors influencing the development of dental disease among children and adol escents in South Kazakhstan region.
3. Explore the mineral components of drinking water in different regions of South Kazakhstan region.

MATERIAL & METHODS

Dental methods: survey, inspection, probing, percussion, electric pulp test, the response to temperature stimulus

Hardware methods: radiography (dental or panoramic orthopantomography ,Visiography)

Laboratory Methods: sanitary methods of mineral content of the drinking water (fluoride, calcium, magnesium, dryness, etc.).

Statistical Methods: The results of clinical and laboratory findings were subjected to statistical vari ation-processed using the Student's criteria.

Material:

The study was conducted on the basis of the South Kazakhstan regional dental clinic.

Dental status was studied by recording and reporting of the South Kazakhstan regional dental clini c with dental card WHO (1997). Analyzed 1,500 individual cards patients applied for dental care fr om 2009 to 2013.Determines the spread (in %) , the intensity of dental caries, the ratio of uncompl icated to complicated caries,oral hygiene index , taking into account the child's age , condition of p eriodontal tissues .

The levels of toxic substances in the air and soil obtained from recording and reporting of the Offic e of the State Sanitary and Epidemiological Surveillance SKR for the period from 2009 to 2013

Determining the level of the mineral components of drinking water was held in the center of Sout h Kazakhstan regional sanitary - epidemiological expertise. 32 samples of drinking water was studied.

RESULTS

As an indicator of dental disease we selected primary dental care treatment for different age grou ps: children (from 1 to 14 years), Studying the dynamics of the primary uptake of children and adolescents showed that between 2009 and 2013. caries was found in 36,8 ± 1,5%, complicated ca ries at 60,7 ± 1,6%, at periodontal 0,4 ± 0,07%, diseases of the oral mucosa in 2,2 ± 0,13% of the co nverted. Public health including dental is directly dependent on the composition of water consumed. In order to determine the level of minerals in the drinking water is consumed, samples were taken from different regions of South Kazakhstan region. Established deficiency of fluoride ion in drinking water in all regions (0,14 -0,63 mg / l). Normally should be 1.5 mg / l. For example in the area below the norm Sozak 2.5 times Ordabasy district 3 times Tolebi area 4 times, Sairam district 5 times , and in Shymkent from 6 to 8 times.

POSTER PRESENTATIONS **PP36**

Correlation analysis depending accruing amounts of fluoride to drinking water in the body and cari es showed a statistically significant moderate direct correlation (r = 0,67 ± 0,02, P <0.01) . Nevertheless, if there is a causal relationship between the studied factors need to assume the presence of other action. Found that a significant role in the occurrence of dental diseases in children and adolescents receiving abuse plays a sugar-
food , which resulted in 57.7% of patients. A rigid inadequate intake of food caused disease in 12. 3 % (respectively r = 0,31 ± 0,01, P < 0.01 and r = 0,22 ± 0,03, p < 0.01). Studies have shown that gains dental disease affects a history of such factors as lack of courtship oral (67.3 %), the presence of dentition anomalies and strains (36.7%), non- carious diseases of the mouth (21.6%) (respectively r = 0,51 ± 0,03, p <0,01, r = 0,42 ± 0,02, P < 0.01 and r = 0,19 ± 0,01, p < 0.01).
Data analysis showed that the intensity of occurrence of dental caries of children and adolescents are in direct correlation to the content of contaminants in the soil (r = 0,65 ± 0,02) and atmospheric air (r = 0,57 ± 0,03) adolescents (15 to 17 years). And adults between 2009 and 2013

CONCLUSION

1. The share of primary disease in the pediatric population of 75,0 ± 3,7%, adolescents 24,0 ± 3,8% ,adults 1,0 ± 0,3%.
2. During the period from 2009 to 2013 among children and adolescents caries was found in 36,8 ± 1,5%, complicated caries at 60,7 ± 1,6%, periodontal at 0,4 ± 0,07%, diseases of the oral mucosa in 2,2 ± 0 ,13% converted.
3. Correlation between the amount of fluoride comes from drinking water in the body and moderate caries direct correlation (r = 0,67 ± 0,02, P <0.01) .
4. Occurrence among children and adolescents of dental diseases receiving abuse and sugar-containing food was 57,7% (r = 0,31 ± 0,01, P <0.01). A rigid inadequate intake of food resulting fro m disease 12,3% (r = 0,22 ± 0,03, p < 0.01).
5. Gains dental diseases affect a history of such factors as a lack of oral courtship (67.3 %), the pre sence of anomalies and dentoalveolar strain (36.7 %) mouth disease (21.6 %) (r = 0 , respectivel y, 51 ± 0,03, p <0,01, r = 0,42 ± 0,02, P < 0.01 and r = 0,19 ± 0,01, p < 0.01).
6. Correlation between the intensity of occurrence of dental caries among children and adolescent s are directly depend on the content of contaminants in the soil (r = 0,65 ± 0,02) and atmospheric air (r = 0,57 ± 0,03)

KEYWORDS

children, dental care, diseases of the oral mucosa

METHOD OF BANDAGING OF AN APPENDICULAR STUMP DURING THE LAPAROSCOPIC APPENDECTOMY

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OBJECTIVE

The Laparoscopic appendectomy is widely implemented in the treatment of the appendicitis. The question of bandaging and treatment of appendicular stump by laparoscopic technology still remains relevant. Applied methods of stump bandaging take more time of operations and leaving closed cavity.

MATERIAL & METHOD

The research work was conducted in patients, treated in the city hospital of Kentau, South Kazakhstan region from 2012-2013 years. The control group included 250 patients with overlay Roder hinges. In the main group were 288 patients. Firstly the first loop is formed, the lower thread reflects the first loop. Double-looped node is forming, which gives reliable fixation of appendicular stump. This method of bandaging of vermiform appendix was patented by us. Formed extracorporeal loop we clench with atraugrip jaws in the region of formed node and immerse it into abdominal threw trocar. For better combination of the loop, firstly we move it to the base of appendix. By using a clogging pusher, we tight one end, hold another end with tension and encourage tightening of the loop and fixation of the node. After the desired yarn tension, we tie it with simple knot for the effective and reliable fixation. Combinated anesthesia was used. These Methods were perfomed on 288 patients of all ages, complications as a slipping of a ligature weren't observed.

RESULTS

Taking into account indications and contraindications the laparoscopic appendectomy that was made technically correctly - is very effective, low-traumatic method of treating of an acute or a chronic appendicitis. The laparoscopic appendectomy with main advantages of laparoscopic surgery, giving us a good opportunity of examining more detailed state of abdominal bodies and small pelvis, which is too hard to do in an open surgery, and causes higher chance of tissue trauma.

CONCLUSION

Due to close diligence of loops a potential source of complications is being removed. The surgical intervention is being shortened for 10-15 minutes. A loop formation out of abdominal is useful for surgical review.

KEYWORDS

appendectomic laporoscopy, bandaging, appendicitis, appendicular stump

ADVANTAGES OF TRANSANAL HEMORRHOIDAL DEARTERIALIZATION COMPARED TO OTHER METHODS FOR THE TREATMENT OF GRADE III AND IV HEMORRHOIDAL DISEASE

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OVERVIEW:
Haemorrhoidal disease (HD) is an ano-rectal idiopathic vessel dysplasia and is one of the most common proctologic problems, occurring in 4 – 10% of the general population. A primary phase in the haemorrhoidal development is the hyperplasia of the cavernous vessels and as a consequence disordered blood drainage. The arterial blood, pass through pathologic AV – shunts into the venous cavernous cavities. Etiologic factors for HD include prolonged straining, irregular bowel habits and heredity .HD is classified into four grades, depending on the severity of the haemorrhoidal prolapse.
Transanal hemorrhoidal dearterialisation (THD) is an innovative surgical technique using Doppler guided identification and ligation of the the terminal branches of superior rectal artery 2-3cm above the dentate line. The THD procedure is a cutting-edge method for haemorrhoid treatment, which revolutionizes the surgical approach to haemorrhoids: it ensures maximum effectiveness of results, while minimizing the levels of invasiveness, pain and perioperative stress for patients.

MATERIAL & METHOD
In our Clinic, a number of 44 patients were operated by the THD method, 47 were treated with the laser-modified Milligan – Morgan haemorrhoidectomy method and 7 – underwent the Whitehead method, for a period of 22 months.

RESULTS
A comparative retrospective analysis revealed bleeding reduction and prolapse improvement in THD in comparison with the other two methods. Reduction in the hospitalization period, analgesis and postoperative recovery was observed as well when THD was applied.

CONCLUSION
When compared to the other two methods, THD has instantaneous and better aesthetic effect, reduces hospitalization period, lessens the analgesis application, minimizes postoperative discomfort, and most importantly decreases complications.

KEYWORDS
Haemorrhoidal disease ,Transanal Haemorrhoidal Dearterialization, laser-modified Milligan – Morgan haemorrhoidectomy, Whitehead method

POSTER PRESENTATIONS **PP39**

SURGICAL FEMORAL-POPLITEAL ENDARTERECTOMY AND SURGICAL REMOVAL OF THE SAPHENOUS VEIN – THEIR IMPACT ON THE PATTERN OF GAIT. COMPARATIVE ANALYSIS OF THE RESULTS.

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OBJECTIVES

1.To establish whether surgical endarterectomy of the lower limbs and surgical removal of the saphenous vein have an impact on the gait pattern of the patients who had been previously diagnosed with peripheral arterial disease or, respectively, with chronic venous insufficiency.
2. To evaluate diagnostic efficacy of the Ultraflex Computer Dyno Graphy measurement system manufactured by the Infotronic Medical Engineering company.

MATERIAL & METHOD

Research groups: PAD group: 20 patients diagnosed with peripheral arterial disease, each subjected to a surgical femoral-popliteal endarterectomy; CVI group: 34 patients suffering from chronic venous insufficiency, each subjected to surgical removal of the saphenous vein; CONTROL group: 17 healthy volunteers.
A measurement of gait has been performed three times in both groups of patients: before surgical intervention, directly after the intervention and 6 weeks after the surgery. The measurement and the gait analysis was carried out by means of Infotronic Computer Dyno Graphy system. Selected gait parameters have been analyzed, including speed, cycle duration, durations of single (Ssup) and double support (Dsup) on the left and right leg.

RESULTS

Walking speed in both groups of patients (PAD and CVI) decreased in the 2nd measurement compared to the 1th, and increased in the 3rd measurement.
Ssup decreased and Dsup increased in the 2nd measurement comparing to the 1st while Ssup increased and Dsup decreased in 3th measurement again in both patient groups.
PAD group has much longer Dsup phase than CVI and CONTROL groups.

CONCLUSION

Surgical femoral-popliteal endarterectomies and surgical removal of the saphenous vein surgery do have an impact on the gait pattern of the patient, especially in the early days after the surgery. Gait pattern measured long after the surgery is better compared to before surgery gait.

KEYWORDS
peripheral arterial disease, chronic venous insufficiency, gait analysis

POSTER PRESENTATIONS **PP40**

MODERN CLEAN-UP PROCEDURES FOR INCREASING THE SENSITIVITY OF OCHRATOXIN A DETECTION

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OBJECTIVES

Ochratoxin A (OTA) is one of the most common naturally occurring mycotoxins and is found in a variety of grain crops such as barley, corn, wheat, rye and oats. In the past OTA, was found and analyzed in different food and beverages (e.g. beer). OTA is considered a serious health hazard to humans as it possesses nephrotoxic, hepatotoxic, teratogenic, carcinogenic, and immunotoxic properties. Humans can be exposed to OTA if they consume contaminated foods of plant based origin. Food products derived from animals that have been fed mould contaminated feed or fodder also represents an important source of contamination to humans.

MATERIAL & METHOD

The work contains three parts, trying to indicate the level of knowledge about the topic of mycotoxins in people from Romania, Italy and Spain, and also to determine the amount of OTA in liquorice samples using different kinds of extraction and cleaning procedures.

1. Students from Faculty of Medicine from Transilvania University of Brasov (group 1), university students from Spain and Italy received the link for an online posted questionnaires were they completed their information regarding the topic of mycotoxins.

2. Based on the scientific literature identified on PubMed database, articles about OTA extraction, cleaning-up procedures and analytical methods were systematized and critical analyzed.

3. Experimental studies and optimizations were done using ELISA with different extraction procedures and cleaning-up steps.

RESULTS

Taking into account the differences of ages, education and location, the information concerning the sources of fungi/mycotoxins, their adverse effects, possibility of prevention, sources of information about the topic of mycotoxins were compared for the groups involved on online questionnaire.

Based on data found on the scientific literature, immunoaffinity columns, molecular imprinting polymers and aptamer columns were tested for cleaning possibilities of samples containing OTA. The results were compared for standards and spiked samples.

CONCLUSION

Statistical analysis of questionnaires indicated that most of the people have general knowledge about the topics of mycotoxins, but for some of the sub-topics their information is limited or incomplete. Obtained analytical results indicated possibilities to extract OTA and to clean the sample, increasing on that ways to level of OTA in samples before their analysis in real samples.

Acknowledge

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KEYWORDS: ochratoxin A, molecular imprinting polymers, aptamers, immunoaffinity, ELISA

POSTER PRESENTATIONS **PP41**

INVESTIGATION OF *HIF1α* GENE EXPRESSION IN MINEWORKERS

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OBJECTIVES: Depending on mineworkers' job conditions they might be exposed to physical and chemical factors which causes chronicle and hypoxia. Mine work may also create respiratory hazards from coal dusts and toxic gases from mine fires, also chemicals such as silica and asbestos. With this research, we have tried to specify the profile of Hypoxia Inducible Factor 1 Alpha (*HIF-1α*) gene mRNA expression which master regulator of the adaptive response to air pollution and hypoxia.

MATERIALS AND METHODS: For this research, 10ml blood sample has been taken from 47 mineworkers who still work and 25 healthy checks from a mine near Kayseri. Genetic studies were conducted in Genome and Stem Cell Center (GENKOK). Mineworkers are divided into 2 groups which are working underground (n=29), working aboveground (n=18). RNA was isolated from peripheral blood samples and mRNA expression levels are specified of *HIF-1α* gene with the method of Quantitative Real Time PCR.

RESULTS: *HIF-1α* gene expression level was found dramatically higher than control group when compared with underground and aboveground group (p=0.001).

CONCLUSIONS: As a result, this is the first study about *HIF-1α* gene mRNA expression in mineworkers who are exposed to chronicle hypoxia and air pollution. Levels of *HIF-1α* mRNA expression founded similar between underground and aboveground groups. According to our results, we suggest that, changes in the level of *HIF-1α* is not caused by hypoxia which can be occurred by underground work environment but, caused by air pollution created by many physical and chemical dust. This finding can contribute to literature by developing this research by increasing the number of mineworkers and other genes related with air pollution and hypoxia.

KEYWORDS: *HIF-1α*, Mineworkers, Air Pollution, Hypoxia

POSTER PRESENTATIONS **PP42**

ASSESSMENT OF THE HEART RATE VARIABILITY IN PATIENTS WITH IDIOPATHIC PULMONARY ARTERIAL HYPERTENSION AND EISENMENGER SYNDROME

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OBJECTIVES

Pulmonary arterial hypertension (PAH) is a rare disease that cause right heart dysfunction due to cardiac structural and functional impairment. Among PAH there are subgroups which differ in etiology, remaining unknown for idiopathic pulmonary arterial hypertension (IPAH) and having origin in congenital cardiac shunt in Eisenmenger syndrome (ES). Sudden cardiac death is responsible for ca. 20-25% of deaths in PAH. The heart rate variability (HRV) is a noninvasive method used to estimate the autonomic nervous system function, and there is evident association between autonomic nervous system imbalance and long-term survival in diseases such as heart failure or myocardial infraction. Despite that, there is no data concerning HRV changes in PAH. Therefore the aim of this study was to compare HRV in patients with IPAH, ES and control group.

MATERIAL & METHOD

The study included 25 consecutive patients with IPAH and 16 with ES, and 24-Hour Holter Monitoring with time domain analysis of HRV was performed. Median values of SDNN, SDNNi, SDANN, rMSSD, pNN50 total and pNN6% total for each group were calculated. Mann-Whitney U test was used to compare the difference between groups where appropriate.

RESULTS

The following HRV time domain parameters were significantly decreased in IPAH patients compared with the control group: SDNN (93.00 ms vs 131.00 ms, p=0.004), SDNNi (37.00 ms vs 54.00 ms, p=0.003), SDANN (80.00 ms vs 119.00 ms, p=0.005), rMSSD (26.00 ms vs 42.00 ms, p=0.01), pNN50 total (3613.00% vs 11498.00%, p=0.005) and pNN6% total (3641.00% vs 6597.00%, p=0.026). In ES patients only SDNNi (44.50 ms vs 54.00 ms, p=0.013) was significantly reduced compared with the control group. There were no significant differences between IPAH and ES.

CONCLUSION

Patients with IPAH exhibit severely depressed HRV when compared to the control group. Particular attention should be paid on pNN50 and rMSSD parameters which are independent of long-term trends and predominantly reflect vagal activity. Significant depression of these HRV parameters in IPAH patients may indicate the attendance of the autonomic nervous system dysfunction with parasympathetic withdrawal in the pathogenesis of IPAH. The sympathovagal balance in IPAH could be considered as an important risk marker of development of arrhythmias and sudden cardiac death.

KEYWORDS

autonomic nervous system, holter monitoring, rare disease, heart rate variability, sudden cardiac death

POSTER PRESENTATIONS **PP43**

PREANALYTICAL VARIABLES AND ERRORS IN SAMPLE COLLECTION,SAMPLE TRANSPORT, SAMPLE PREPARATION AND STORAGE.

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OBJECTIVES

1. To identify the variables in collection & transport of blood samples, sample preparation & sample storage, significant for discordant test results
2. To enlist remedial measures for the errors stated.

MATERIAL & METHOD

A prospective study was carried out in the phlebotomy unit of a tertiary care hospital, involving approximately 600 patients (especially old, obese subjects & children <5 years) over a duration of 6 weeks. Observations were made during the entire process of blood sampling.Special emphasis was laid on proper venous localization for the draw, tying of tourniquet, use of vacutainers/needled syringes (minimal trauma), disinfection, colour coded/ labelled test tubes/containers(to prevent mix-ups/use correct anticoagulant),timed draws, transportation & processing of samples as well as proper identification of the patients. Interactions were done with the collecting technicians, other laboratory staff & the patients based on specific questions. Patient-variables like food-intake, drug(s) taken, hypersensitivity reaction etc. were also taken into consideration. Needlestick-injury, if any, was enquired about.

RESULTS

It was found that in 3.6% cases, there were sample collection errors with 95% C.I. 2.04% to 4.78 %.(upper and lower limits respectively); in 8.4% cases, there were improper samples received with 95% C.I. 6.35% to 10.54%.; in 1.8% cases, there were patient identification errors with 95% C .I. 0.89%to2.96% and in 5.4% cases, there were transportation errors with 95% C.I. 4.02% to 7.54%.

CONCLUSION

This study shows that preanalytical errors in blood sample testing play a significant role in discordant test outcomes in the patient-population selected. The technicians & other lab personnel should be counselled from time to time, to check collection & transportation errors. Phlebotomy can be performed under a doctor's supervision in difficult cases.Clotted blood samples need to be centrifuged within half an hour of collection & the haemolysed samples have to be discarded to avoid incorrect reporting.Sometimes,these errors are cumulative & following S.O.P.s will help to overcome the hurdle. Moreover, streamlining of the sampling process with computerized database to track errors & quality controls will contribute to precise and accurate reporting (for adequate management of disease-states), prevention of discomfort/ infection to the patient & saving expenses.

KEYWORDS

Pre-analytical, phlebotomy, sampling

POSTER PRESENTATIONS **PP44**

USEFULNESS OF THE SONOELASTOGRAPHY IN THE EVALUATION OF THE CAPSULAR FORMATION AFTER BREAST AUGMENTATION

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OBJECTIVES

Breast augmentation is a surgical procedure, in which silicone implants have been used for more than 50 years. There are many indications for this procedure, including reconstruction after masctectomy, correction of the congenital disorders and cosmetic procedure. The most frequent local complication of this surgery is a capsular formation due to the fibrosis.
The aim of the study was to assess the usefulness of the sonoelastography in the evaluation of the capsular formation around silicone implants.

MATERIAL & METHOD

The study group included thirteen patients between age 20 to 41, who underwent breast augmentation with silicone implants. Their 26 breasts were examined before surgery, 7 and 14 days and minimum 12 months after surgery. The breast stiffness was assessed with tonometry. We have also used shear wave elastography to evaluate elasticity of the breast tissue and capsular formation after surgery.

RESULTS

We have checked correlation between capsular elasticity measured on subsequent visits and the Baker scale. There were no significant relationships between any pairs of variables ($p>0,050$). What is more, we have also analyzed correlation between the time of the follow up and changes in the tissue elasticity of every region – no significant relationship has been found.
The capsular elasticity during each visit was measured and the greatest decrease in pericapsular elasticity was in lower and inner quadrants. Moreover, there were significant difference between the elasiticity of the tissue before and one week after surgery ($p<0,05$) and no significant changes in the elasticity before surgery and in the end of the follow up.

CONCLUSION

Sonoelastography is a precise, non-invasive technique of the evaluation of the capsular formation after breast augmentation. It may show changes that cannot be assessed using palpation, what means that it is more objective method of the examination.

KEYWORDS

silicone implants, capsular formation, sonoelastography

EVALUATION OF FERTILITY IN PATIENTS TREATED FOR ECTOPIC PREGNANCY ACCORDING TO THE METHOD OF THERAPY

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OBJECTIVE

An ectopic pregnancy is a complication of pregnancy in which the embryo implants outside the uterine cavity. It is usually located in the Fallopian tube (95,5%), followed by the ovary (3,2%) and the abdominal cavity (1,3%). The frequency of ectopic pregnancy is between 1 and 2% of live births but the number of the incidences is still increasing. The patients are treated using one of the three types of therapy: pharmacological treatment with methotrexate, conservative surgery (salpingotomy) or radical surgery (salpingectomy). There are not many studies, which refer to women's fertility after treatment of ectopic pregnancy and the results of previous research are inconclusive. The objective of the study was to compare the results of women's fertility in the 24-months follow-up after treatment of tubal ectopic pregnancy according to the applied methods of therapy.

MATERIAL & METHOD

The study included 211 patients treated because of the tubal ectopic pregnancy in the Obstetrics and Gynecology Hospital of Poznan University of Medical Sciences in Poland between 2006 and 2010. The study group was divided into three subgroups according to the type of the method of treatment: therapy with methotrexate, laparoscopic salpingotomy or laparoscopic salpingectomy. Women's fertility, in the period of 24 months from the end of the treatment, was assessed on the basis of a written response to a questionnaire sent to patients and information obtained by the telephone.

RESULTS

Information about fertility after treatment of ectopic pregnancy was received from 133 patients. 96 of them (76%) attempted to get pregnant within 24 months after treatment. Intrauterine pregnancy was confirmed in 73 (76%) patients: in 21 (75%) women treated with methotrexate, in 31 (74%) patients, who underwent salpingotomy and in 21 (81%) women treated with salpingectomy. The number of intrauterine pregnancies did not differ statistically between groups ($p>0,05$). The average time of efforts to get intrauterine pregnancy was 12 months. Another ectopic pregnancy occurred in 3 women treated pharmacologically, in 3 patients after salpingotomy and in one female treated with salpingectomy.

CONCLUSION

The study revealed that treatment of the ectopic pregnancy did not have any effect on fertility, the waiting period for the next pregnancy and the risk of subsequent pregnancy outside the uterine cavity.

KEYWORDS

ectopic pregnancy, methotrexate, salpingotomy, salpingectomy, fertility

THEBESIAN VALVE HEIGHT/CORONARY SINUS OSTIUM DIAMETER RATIO (TVCSRATIO) AS A NEW INDICATOR SPECIFYING MORPHOLOGICAL SHAPE OF THEBESIAN VALVE

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OBJECTIVES

The coronary sinus ostium (CSO) is covered with the Thebesian valve (TV), quite variable in shape which is assessed subjectively. The TV is an anatomical barrier during CS cannulation, which may become complicated due to TV's shape and size. The most common shapes are: remnant (type I), semilunar (type II) and fold (type III), but only the latter may hinder CS cannulation. The TV is easy visible using electron beam computed tomography (EBCT), however this method cannot show TV's morphological shape, only its size. We propose to create a new indicator Thebesian valve height/coronary sinus ostium diameter ratio (TvCsRatio) which will be helpful in specifying the real shape of the valves imaging in EBCT.

MATERIAL & METHOD

273 randomly selected autopsied human hearts were examined. Shape of the valve was assessed, the TV height and the CSO diameter was measured. 169 hearts have the TV in shapes from types I-III. The TvCsRatio was computed as the TV height divided by the CSO diameter, then the percentile curve was generated to show TvCsRatio's range depending on the TV shape. To estimate TvCsRatio's boundary values between considerate valves analysis were conducted.

RESULTS

Values of 10, 25, 50, 75, 90 TvCsRatio's percentile were respectively for: Type I (n=57) 0.15, 0.19, 0.23, 0,27, 0.39; Type II (n=73) 0.45, 0.5, 0.58, 0.68, 0.72; FV, Type III (n=39) 0.73, 0.77, 0.8, 0.87, 1.02. The TvCsRatio higher than 1.00 was observed in 4 cases. The boundaries between Type I and II was estimated at 0.38 and Type II and III at 0.72.

CONCLUSION

The TvCsRatio can be useful in assessing the TV shape, which is imaging in EBCT. We give threshold values for the TvCsRatio allows to easily determine the TV shape which could help to choose the adequate technique and avoid complications during CS cannulation.

KEYWORDS

coronary sinus cannulation, electron beam computed tomography, cardiac resynchronization therapy, right atrium

A NEW CANNABINOID RECEPTOR IN AMYGDALA FOR ANXIETY: GPR55

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OBJECTIVE

The orphan receptor GPR55 is a novel cannabinoid receptor. GPR55 and several endogenous cannabinoid receptor ligands, as an important mediator of tissue healing processes. We have investigated the effects O-1602 (GPR55 receptor agonist) alone and with ML193 (GPR55 receptor antagonist) in the amygdala of rats using the plus-maze test of anxiety.

MATERIAL & METHOD

Male Wistar rats (200-250 g) were anaesthetized with ketamine and xylazine and special cannulas were inserted stereotaxically into the amygdala bilaterally. Seven days after recovery from surgery, the behavioral testing was started.

RESULTS

Bilateral injection of different doses of O-1602 (0.2, 1 and 5 µg/rat) into the intra-CeA increased percentage of open arm time (%OAT) and open arm entries (%OAE) that are representative of anxiolytic-like behavior. In another series of experiments, co administration of ML193 none effective dose (0.01µg/rat), with three doses of O-1602 decreases the anxiolytic-like effects in doses (0.2 and 1 µg/rat) of O-1602.

CONCLUSION

The obtained data showed that ML193 could reverse the anxiolytic-like effect at the doses of O-1602 (0.2 and 1 µg/rat). The results suggest that cannabinoid system into the amygdala may be modulate anxiety-like behaviors with GPR55 receptor.

KEYWORDS

amygdala; Anxiety; GPR55 receptor

SOCIAL PROGRAMME

May 17th, Saturday, Bosphorus Trip

The most striking feature of Istanbul for visitors is theBosphorus, the channel between Europe and Asia. Therefore, we have decided to take you on a boat trip circling around the Bosphorus for nights. After dinner in downstairs, we will go up stairs to enjoy the view of whole Bosphorus at night. Although we are sure that our DJ will heat the place up, we strongly advice you to take a pullover, since it will be surely windy.

May 18th, Sunday,Taksim

Welcome to most crowded and most intellectual city of Turkey, Istanbul. We would like to start with a brief history before telling more about the European Capital of Culture in 2010.

Istanbul became the capital of many big civilizations throughout the history, but most importantly Ottomans and Byzantines. It was the principal city of Eastern Roman Empire between 395-1204 and 1261-1453 and Ottoman Empire between 1453-1922. In order to fully understand and embrace this city, which hides within itself a mighty history of hundreds of years, you have to live with its own dynamics, wake up with its unique sound, view its unique colours. Hugging the Bosphorus, the city puts its one foot on Asia and the other one on Europe. Due to its location it became the center of commerce for a long time, thus giving rise to one of the most cosmopolite cities in the world.

Every visitor/habitant left a mark in Istanbul, creating a wondrous, everlasting history. You can see the most beautiful monuments of Turkey in the old city, which rests on the peninsula created by Sea of Marmara and famous Golden Horn. Sultanahmet Area, also known as hippodrome, hosts the most important buildings of the city such as Sultanahmet Mosque (the city symbol with its 6 minarets), Hagia Sophia which hosted Orthodox Patriarch throughout Byzantine history, and just behind that wonder, Topkapı Palace where Sultans lived for many years. Built by Mimar Sinan, under the direction of Suleiman the Great, Suleymaniye Mosque is accepted as the peak of Islamic architecture in Istanbul. Yerebatan Sarnıcı (Sunken Cistern), also near Sultanahmet Area, is the largest and greatest cistern of Istanbul built by Byzantines.

Istanbul, a city which is also known by its palaces, has many marvellous buildings. Such palaces are Topkapı, Çırağan, Dolmabahçe, Beylerbeyi, Yıldız, etc. with most important ones being Topkapı and Dolmabahçe.

Other than historical wonders, this city has also places such as Taksim Square, Istiklal Avenue, Beyazıt Area, Park of Gülhane, Eminönü and Ortaköy for you to visit. There are many cafes, restaurants, bars, clubs, art galleries, theatres and cinemas around Istiklal Avenue and Nişantaşı. The most popular night clubs are around Ortaköy by Bosphorus, and the most popular shopping district is Taksim.

Finally there are many historical bazaars in Istanbul, with most important two as Kapalı Çarşı (Grand Bazaar) where you can get jewellery, clothing and souvenirs, and Mısır Çarşısı (Spice Bazaar) where you can taste and buy the local flavours of entire Turkey.

We all hope that you have a chance to visit this wonderful city.

TRANSPORTATION

Istanbul has different means of transportation for the places you might want to visit. Although public transportation mainly consists of buses, trams, subways, ferries and “dolmuş” type taxis are also available for roaming around the city. To help with your navigation in Istanbul, we here provided basic information wtih each way of transportation and some significant places you might want to see. However, we should first tell about the ticket system.

Transportation System

Buses, trams, subways and ferriesdo not accept money unlike “dolmuş” and taxis. You have to get an electronic ticket/smart ticket (AKBİL) (1.75TL per ride) from some buffets or ticket offices which are rarely found. AKBİL is a electromagnetic card, which is bought for 6 TL and used for a variety of journeys. However, we should warn you that unlike many European countries, the ticket system in Istanbul looks for the number of rides you have taken, and you don’t have a time limit for the ticket. Instead every ride costs 1.75TL no matter the distance of the journey.

Dolmuş type taxis work on the route taksim-aksaray-çapa-cevizlibağ and each ride costs 2.75TL. They mostly take-off after they’re full with 8 people. The last type of transportation is taxi, they start with 2.75 TL and you have to give extra 0.14 TL per 100 meters.

One useful thing to remember though, most buses, trams and subways do not work after midnight. Therefore, you have to use “dolmuş” or taxis to get back to your accommodation place. So if you are not attending the social programme, or decided to stay after the programme and have more of Istanbul late at night, keep in my mind that these might be your only option to find your hotel.

* 

IMPORTANT PLACES and HOW TO GET THERE

AIRPORT:

The smartest way to and from airport is the subway(M1)

You can use the subway to get to Zeytinburnu in which you can transfer to the tram line(T1), heading for Eminönü, Kabataş direction. After 8 stops, you can jump out at Çapa-Şehremini station, which is just next to our faculty.

ISTANBUL FACULTY of MEDICINE:

There are three ways to get to our faculty: Buses, Tram and dolmuş.The most important one is the bus system. There are buses going through Millet Caddesi (Avenue) from Eminönü, Beyazıt, Beşiktaş and Taksim. Around 5-8pm when there is a huge traffic jam, it may be wise to use the tram to get to Sultanahmet, Eminönü and Beşiktaş as well.

BUSES ;
From Taksim: 83, 83O, 93T, 97T, 85T, 71T, 72T, 73, 89C, 92T
From Eminönü: 82, 92, 93, 92C, 33B, 33Y
From Beşiktaş: 28T
From Beyazıt: 36ES, 97B, 93C, 82B, 36

TRAM: With the tram you can return from Kabataş (10min walk from Beşiktaş), Eminönü and Sultanahmet until midnight.

DOLMUŞ : With Taksim-Cevizlibağ dolmuş route, you can travel really quick to our faculty and hotel both day and night.

Also to let you have an opinion, a taxi ride to Taksim will cost 15-20 TL approximately

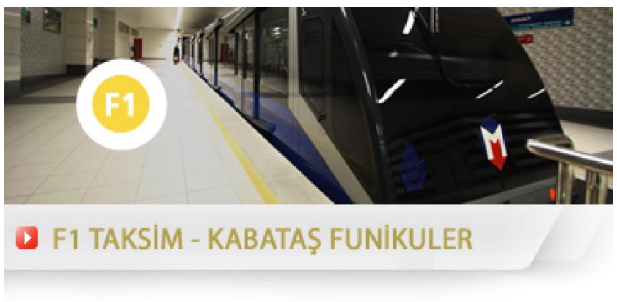
SULTANAHMET:

Sultanahmet is a square, which [illegible]lled as capital of Istanbul. There are two major ways to get there. The smartest way would be to take the tram to Eminönü, Kabataş direction from our faculty. Also you can get a bus to Beyazıt and walk for five minutes. Since, Beyazıt direction is fairly populated with traffic, the best way would be the tram.

Dolmus

EMİNÖNÜ:

If you are trying to get to Eminönü from our faculty, the best option would be the tram unless you are travelling around noon (10am-2pm), which a bus would be much faster.



KABATAŞ: Kabataş is the last station of the tramline which we normally use to get to our faculty. You can get from there to Taksim with funicular train, get to Beşiktaş or Ortaköy with a bus, or get to Kadıköy (Asian side) with a ferry.

TAKSİM:

Istanbul's biggest culture and entertainment area, Taksim, has a rich variety of transport systems to get there. The smartest two ways to get to Taksim are, "dolmuş" and buses; as mentioned above.

ORTAKÖY:

Ortaköy is the place which most people go visit, since it has one of the best views of Bosphorus, lying just beneath Bosphorus Bridge. To get there you have to get to Beşiktaş first. If it's morning 28T will be a very good choice to get to Beşiktaş directly. After noon though, you have to take the tram to Kabataş (the terminal station) and the find a bus (22, 22RE, 25E) there to get to Ortaköy. Keep in mind that this will be at least an hour ride.

KADIKÖY:

Kadıköy is the biggest place on Anatolian side of Istanbul. To get there, you have to take a ferry from Eminönü, Karaköy or Kabataş (all can be reached via tram).

USEFUL LINKS:

http://sehirrehberi.ibb.gov.tr/Map.aspx?&scl=4&cx=89854&cy=96753&ap=uydu&lng=en *With a rich search database you can use this map to find your way around in Istanbul
http://www.iett.gov.tr/en/ : This site gives information about the take off times of buses, their routes and it is very useful to learn which bus number to take for your destination
http://www.istanbul-ulasim.com.tr/ This is the site for tram and subway lines, thought it is only in Turkish. http://www.sehirhatlari.com.tr/ This is the site of ferries, only in Turkish as well.
http://maps.google.com/maps/ms?authuser=0&vps=2&hl=tr&ie=UTF8&oe=UTF8&msa=0&msid=206945425610402665363.0004bee8c646801807d6fThis is the general googlemapsversion of Istanbul

Welcome to most crowded and most intellectual city of Turkey, Istanbul. We would like to start with a brief history before telling more about the European Capital of Culture in 2010.

Istanbul became the capital of many big civilizations throughout the history, but most importantly Ottomans and Byzantines. It was the principal city of Eastern Roman Empire between 395-1204 and 1261-1453 and Ottoman Empire between 1453-1922. In order to fully understand and embrace this city, which hides within itself a mighty history of hundreds of years, you have to live with its own dynamics, wake up with its unique sound, view its unique colours. Hugging the Bosphorus, the city puts its one foot on Asia and the other one on Europe. Due to its location it became the center of commerce for a long time, thus giving rise to one of the most cosmopolite cities in the world.

Every visitor/habitant left a mark in Istanbul, creating a wondrous, everlasting history. You can see the most beautiful monuments of Turkey in the old city, which rests on the peninsula created by Sea of Marmara and famous Golden Horn. Sultanahmet Area, also known as hippodrome, hosts the most important buildings of the city such as Sultanahmet Mosque (the city symbol with its 6 minarets), Hagia Sophia which hosted Orthodox Patriarch throughout Byzantine history, and just behind that wonder, Topkapı Palace where Sultans lived for many years. Built by Mimar Sinan, under the direction of

Suleiman the Great, Suleymaniye Mosque is accepted as the peak of Islamic architecture in Istanbul. Yerebatan Sarnıcı (Sunken Cistern), also near Sultanahmet Area, is the largest and greatest cistern of Istanbul built by Byzantines.

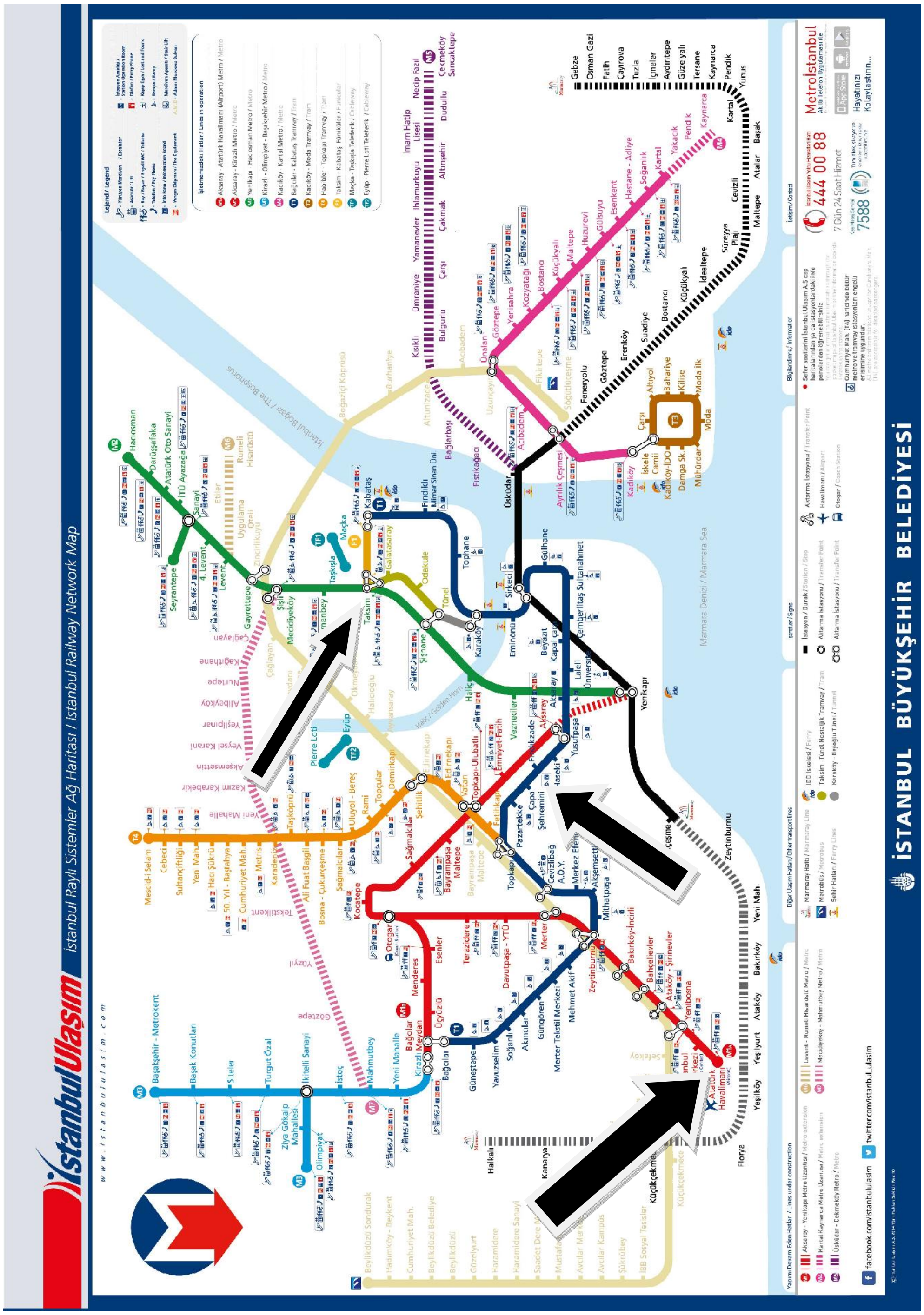
Istanbul, a city which is also known by its palaces, has many marvellous buildings. Such palaces are Topkapı, Çırağan, Dolmabahçe, Beylerbeyi, Yıldız, etc. with most important ones being Topkapı and Dolmabahçe.

Other than historical wonders, this city has also places such as Taksim Square, Istiklal Avenue, Beyazıt Area, Park of Gülhane, Eminönü and Ortaköy for you to visit. There are many cafes, restaurants, bars, clubs, art galleries, theatres and cinemas around Istiklal Avenue and Nişantaşı. The most popular night clubs are around Ortaköy by Bosphorus, and the most popular shopping district is Taksim.

Finally there are many historical bazaars in Istanbul, with most important two as Kapalı Çarşı (Grand Bazaar) where you can get jewellery, clothing and souvenirs, and Mısır Çarşısı (Spice Bazaar) where you can taste and buy the local flavours of entire Turkey.

We all hope that you have a chance to visit this wonderful city.


M1 METRO STATION
CONGRESS HALL
HOTEL
Turgut Özal Caddesi (Millet Cd.) No:86
Turgut Özal Caddesi (Millet Cd.)
Walk 8 min
650 m
Adnan Menderes Blv
Google Maps does not have permissio


İstanbulUlaşım
İstanbul Raylı Sistemler Ağ Haritası / Istanbul Railway Network Map
İSTANBUL BÜYÜKŞEHİR BELEDİYESİ

PARTNERSHIPS

International Student Congress of (bio)Medical Science

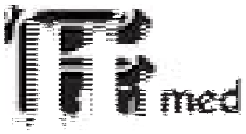
International Student Medical Congress in Kosice

European Students' Conference (ESC)

Since its foundation in 1989, the ESC has become one of Europe's most established student biomedical conferences. It is our mission to promote the scientific exchange between students, scientists, and researchers worldwide. Every year, more than 500 participants from over 50 different countries take the opportunity to attend keynote lectures by renowned experts, participate in exciting workshops, present their research, and to explore the vibrant city of Berlin!

This year's conference will be held from 17-20th of September 2014. Our lecture series, *"Rethinking Medical Research: How do we Achieve Success?"* will explore the dichotomy of medical advance by looking at the achievements, opportunities, and challenges that researchers and physicians face. With topics ranging from Open Access policies, pharmaceutical innovations, revolutionary health policies to advances in Global Health – we hope that this year's topic will both challenge and inspire our participants!

It's also our 25th anniversary and we hope that you will join in on our celebration! For more information, visit our website at www.esc-berlin.com!
Email: info@esc-berlin.com
Facebook: www.facebook.com/escberlin
Twitter: www.twitter.com/escberlin



Westfalen
Eğitim
Danışmanlık