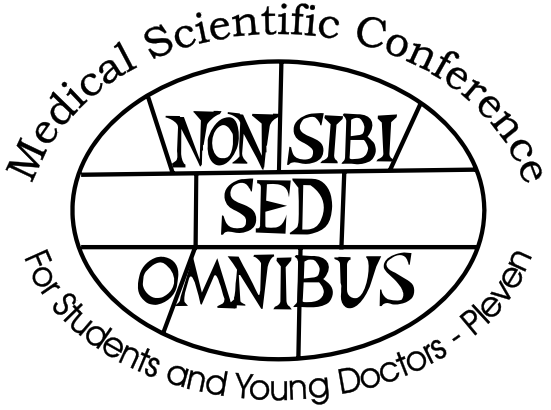
MEDICAL UNIVERSITY – PLEVEN, BULGARIA

XIX INTERNATIONAL MEDICAL SCIENTIFIC CONFERENCE FOR STUDENTS AND YOUNG DOCTORS
26 – 30 SEPTEMBER 2022

MEDICAL UNIVERSITY – PLEVEN, BULGARIA



ABSTRACT BOOK

Under the auspices of the Rector of Medical University – Pleven, Bulgaria

Prof. Dobromir Dimitrov, MD, PhD

WEBSITE:
www.mu-pleven.bg
www.mdsc.mu-pleven.bg

Publisher: Publishing Center Medical University – Pleven

Edited by: Aygulya Akisheva, MD
Assoc. Prof. Diana Pendicheva, MD, PhD
Tsveta Kotseva, 5-th year Medical student

ISBN 978-954-756-303-2 (Book)
ISBN 978-954-756-304-9 (PDF E-book)

DEAR INTERNATIONAL GUESTS,
DEAR YOUNG COLLEAGUES AND FRIENDS,

It is a great pleasure and honour for me to invite you to take part in **XIX International Medical Scientific Conference for Students and Young Doctors** at Medical University – Pleven – the most successful international student forum in Bulgaria attracting participants from the whole world!

For almost 2 years we have learned how to live, work, teach and study in an unprecedented pandemic situation. One microorganism has put the whole world to test. We have rearranged our values and priorities. The coronavirus have made all communities realize that health and education are our most valuable possessions guaranteed by medical and health professionals. These people immediately have become our frontline heroes fighting for our physical and spiritual survival, for our future.

After living for more than two years in an electronic environment, we hope that this year we are going to have our most significant international youth forum in normal live format so that we can meet our international keynote speakers and participants at our Alma Mater in person.

There are at least three key factors for a successful scientific forum. The first one is the educational institution – Medical University of Pleven is a pioneer in robotic surgery, telemedicine, telepathology, 3D medicine, bioprinting, 3D printing constantly introducing advanced technologies in education and clinical practice. Although our university is small in size and young in age it is one of the most dynamically developing in the country attracting growing numbers of Bulgarian and international students.

The second and most important factor is the presence of our students. I am proud of these young people who are curious and brave, eager to study and discover; seeking new challenges and adventures; always motivated and committed.

The third key factor is the support – students need the support of their professors in order to stay motivated, devoted and inspired. That is why we, their teachers and the international speakers and renowned researchers, are here - to teach them, to support them, to show and to guide them along the way of medical science, knowledge and practice. We want to ***Inspire Greatness*** in our students and that is the motto of the youth conference this year. Blaise Pascal said: ***„Man's greatness lies in his power of thought".***

Looking forward to meeting you at the **XIX International Medical Scientific Conference for Students and Young Doctors** at Medical University – Pleven, Bulgaria!

PROF. DOBROMIR DIMITROV, MD, PHD
RECTOR OF MEDICAL UNIVERSITY – PLEVEN, BULGARIA

DEAR TEACHERS,
DEAR COLLEAGUES AND FRIENDS,

Once again, it is our pleasure to welcome you to the **XIX International Medical Scientific Conference for Students and Young Doctors (MDSC)** with this year's motto "Inspire greatness!".

The nineteenth edition of this inspiring forum of young scientist is dedicated to pediatrics and will take place on **26th September – 30th September 2022 at the University Telecommunication Endoscopic Center (TELEC) of MU-Pleven.**

It has been 48 years since Medical University – Pleven started teaching knowledge and wisdom to generations of students! It has been a fortress of future light in education and research and a path to good realization and modern training that brightens our professional dreams! And that is why we continue working with the same motivation, passion and curiosity which guided the very first Organizing Committee in the year of beginning 2002!

Following our tradition, we will tirelessly focus on bringing you again to the best lectures and workshops that we strongly believe will broaden your competence in the basic fields of medicine, pharmacy and health sciences.

We also put our efforts on organizing the **Seventh Autumn School on Innovations in Medicine** which has become a hallmark of MU-Pleven during the first conference days. This year, we will focus your attention on two main pillars: *Pediatrics and Pulmology*. Furthermore, we will cover a number of other innovative topics throughout the entire duration of the conference.

Like in any other remarkable event, your experience would not be completed without meeting new amazing people at our social programme, including a Welcome party and a trip to one of the many beautiful locations in Bulgaria. Therefore, stay tuned for more information.

We are filled with enthusiasm and are looking forward to meeting you all here in Pleven at the XIX International Medical Scientific Conference for Students and Young Doctors.

"The most beautiful things in the world cannot be seen or touched, they are felt with the heart." – Antoine de Saint-Exupéry, The Little Prince.

Warmest regards!

THE ORGANIZING COMMITTEE

ORGANIZING COMMITTEE

SECTION	MEMBERS	CONTACTS
President	Tsvetislav Petrov	petrov.tsvetislav@gmail.com
Vice President	Tsveta Kotseva	tsvety.kotseva@gmail.com
Coordinators	Assoc. prof. Diana Pendicheva, MD, PhD	pendicheva@gmail.com
	Aygulya Akisheva, MD	aygulya.akisheva@gmail.com
Secretary Board	Kristina Peeva	krisi_peeva1@abv.bg
Technical Commission	Reni Chamova	renichamova@abv.bg
	Marina Bozova	mira.muza@abv.bg
	Yoan Ivanov	joan_97@abv.bg
Financial and PR Commission	Antonia Andreeva	tonyb@abv.bg
	Elitsa Lalkova	elalkova00@gmail.com
	Viktorio Mihaylov	viktorioph117@abv.bg
	Mariana Kostova	mariana.k23@abv.bg
Scientific Commission	Munazza Khan	munkhanem@gmail.com
	Mitchelle D'Silva	michellebdss@hotmail.com
	Ralitsa Sotirova	ralisotirovaa2000@gmail.com
	Maria Tsvyatkova	tsvaytkovamaria@abv.bg
	Robert Gjoshev	robert.gosev@yahoo.com
Social Commission	Boryana Hristova	boryana.xristowa@gmail.com
	Viktoria Brankova	victoriabrankova@abv.bg
Advisory Board	Aygulya Akisheva, MD	Iva Kostadinova, MD
	Mikita Velikov, MD	Vasil Neykov, MD
	Ivan-Alexander Kolev, MD, PhD	Miguel Moreno, MD
	Nina Emilova, MD	

WEB DESIGN: Alexey Todorov – a.todorov@mu-pleven.bg
SYSTEM SUPPORT: Vladislav Hristov
MEDICAL TV: Mila Karaivanova, journalist, Medical University – Pleven, Bulgaria
AUTHOR OF SPECIAL AWARDS: **Ivan Ivanov**, sculpturer, Pleven, Bulgaria

CONTENTS

SESSIONS OVERVIEW

SEVENTH AUTUMN SCHOOL ON INNOVATIONS IN MEDICINE 26 - 27 SEPTEMBER 2022	
EPIDERMOLYSIS BULLOSA HEREDITARIA	Assoc. Prof. Ivelina Yordanova, MD, PhD Department of Dermatology and Veneorology, University Hospital "Dr. G. Stranski", Pleven, Bulgaria Medical University – Pleven, Bulgaria
IMPACT OF SULT1A1, UGT2B7, CYP3A5, AND CYP2D6 POLYMORPHISMS ON RESPONSE AND TOXICITY IN TAMOXIFEN-TREATED BREAST CANCER PATIENTS	Prof. Mohammad Safiqul Islam, MD, PhD Laboratory of Pharmacogenomics and Molecular Biology, Department of Pharmacy, Faculty of Science, Noakhali Science and Technology University, Noakhali, Bangladesh
ALLERGIES IN PEDIATRICS – FOCUSING ON HONEY ALLERGIES	Res. Asst. Hilal Karabağ Çitlak, MD Pediatric Allergy and Immunology Division, Faculty of Medicine, Karadeniz Technical University, Ortahisar/Trabzon, Turkey
INHALATORY CORTICOSTEROIDS – STATE-OF-THE-ART AND PROSPECT FOR FURTHER DEVELOPMENTS	Prof. Georgi Momekov, MPharm, PhD Head of the Department of Pharmacology, Pharmacotherapy and Toxicology, Faculty of Pharmacy, Medical University of Sofia, Bulgaria President of Bulgarian Pharmaceutical Science Society
OBSTRUCTIVE SLEEP APNEA	Zlatina Ivanova, MD, PhD Department of Cardiology, Pulmonology, Endorcrinology, Medical University – Pleven, Bulgaria. Clinic of Pulmonology, University Hospital "Dr. G. Stranski", Pleven, Bulgaria
IDIOPATHIC PULMONARY FIBROSIS	Assoc. Prof. Yavor Ivanov, MD, PhD Department of Cardiology, Pulmonology, Endorcrinology, Medical University – Pleven, Bulgaria. Clinic of Pulmonology, University Hospital "Dr. G. Stranski", Pleven, Bulgaria.

ACADEMIC LECTURES (AL)	
ANTIBIOTIC RESISTANCE	Prof. Todor Kantardzhiev, MD, PhD, DSc, M.H.M. National Center of Infectious and Parasitic Diseases, Sofia. President of the Bulgarian Society of Microbiologists.
KEYNOTE LECTURE (KL)	
UPDATES IN NEPHROLOGY FROM THE LAST DECADE	Assoc. Prof. Prince Mohan Anand MD, FACP, FASN, FAST Director Transplant Service, MUSC Lancaster. Lancaster Clinical Assoc. Professor of Medicine and Surgery, Division of Nephrology and Transplant Surgery, MUSC, Charleston, SC, USA.
INDUCED PLURIPOTENT STEM CELLS AND CRISPR/ CAS9 – REVOLUTIONARY TOOLS AND ESSENTIAL BUILDING BLOCKS FOR FUTURE PERSONALIZED THERAPIES	Prof. Ulrich Martin, MD Head of Research Cardiac, Thoracic, Transplant and Vascular Surgery Centre (HTTG); Head of Leibniz Research Laboratory for Biotechnology and Artificial Organs (LEBAO); Hanover Medical School, Hannover, Germany
DOCTOR DETECTIVE: APPROACHING THE CHALLENGING PATIENT	Timothy P. Gaul, MD, D.O. Faculty of Family Medicine, UPMC McKeesport Hospital, Pennsylvania, USA. Director MEI Republic of North Macedonia. US Physician Project.
CLINICAL DIVERSITY IN ENT PRACTICE: DIAGNOSTIC AND SURGICAL CHALLENGES FOR THE DOCTOR	Assoc. Prof. Todor Popov, MD, PhD Department of ENT Diseases and Head and Neck Surgery, Medical University – Sofia. University hospital “Tsaritsa Yoanna – ISUL”, Sofia, Bulgaria.
THREE-DIMENSIONAL MODELING AND PRINTING IN CONGENITAL CARDIAC SURGERY	PD Dr. med. Philippe Grieshaber, MD, PhD Senior Physician Specialist in Heart Surgery and Intensive Care medicine Certificate “Surgery of Congenital Heart Defects”, Pediatric Cardiac Surgery Section, Cardiac Surgery Clinic, University Hospital Heidelberg, Medical Faculty, Heidelberg University, Germany

PLENARY LECTURES (PL)	
HEADACHES IN CHILDREN	Maureen Flemming Gaul, D.O. Physician at CCP-MT View Pediatrics, Natrona Heights, Pennsylvania, USA. Director MEI Republic of North Macedonia, US Physician Project.
PRACTICE OF CASE-BASED CLINICAL REASONING (CBCR) EDUCATION AT THE FACULTY OF INTERNAL DISEASES AT TBILISI STATE MEDICAL UNIVERSITY	Nino Kandelaki, MD, PHD Faculty of Internal Diseases, Tbilisi State Medical University (TSMU), Tbilisi, Georgia
ORGANIZATION OF ERASMUS+ MOBILITY ACTIVITIES AT TBILISI STATE MEDICAL UNIVERSITY (TSMU), TBILISI, GEORGIA. OPPORTUNITIES FOR EDUCATIONAL AND SCIENTIFIC COLLABORATION WITH THE MEDICAL UNIVERSITY – PLEVEN, BULGARIA	Nino Kandelaki, MD, PHD Erasmus + Institutional Coordinator at International Relations Department, TSMU, Tbilisi, Georgia
WORKSHOPS (W)	
W1: SUTURING SKILLS WITH PRACTICE ON REAL TISSUES	**Moderator:** Dobromir Nguyen, MD First Surgical Clinic, University Hospital „Dr. Georgi Stranski“ Pleven, Bulgaria.
W2: CLINICAL DIVERSITY IN ENT PRACTICE	**Moderator:** Assoc. prof. Todor Popov, MD, PhD Department of ENT diseases and Head and Neck surgery, Medical University Sofia, University Hospital “Tsaritsa Yoanna – ISUL”, Sofia, Bulgaria. Assist. prof. Boris Duhlenski, MD Department of ENT diseases and Head and Neck surgery, Medical University Pleven; ENT Clinic, UMHAT “Dr. Georgi Stranski”, Pleven, Bulgaria.

W3: CPR AND AIRWAY MANAGEMENT	**Moderator:** Ivan Malkodanski, MD, PhD University Hospital "Saint Marina" – Pleven, Bulgaria.
W4: COMPUTER-AIDED DRUG DESIGN	**Moderators:** Assist. prof. Aleksandar Pashev Assist. prof. Teodora Aleksandrova Department of Chemistry and Biochemistry, Faculty of Pharmacy, Medical University Pleven, Bulgaria.
W5: DIFFUSION AND SPIROMETRY	**Moderator:** Nikolay Kyuchukov, MD, PhD Department of Cardiology, Pulmonology, Endorcrinology, Medical University - Pleven, Bulgaria. Clinic of Pulmonology, University Hospital "Dr. G. Stranski", Pleven, Bulgaria.
W6: MINIMALLY INVASIVE SURGERY	**Moderator:** Martin Karamanliev, MD, PhD Department of Surgical Oncology, University Hospitqal "Dr. G. Stranski", Pleven, Bulgaria.
W7: PLASTERING BASICS	**Moderators:** Emil Simeonov, MD, PhD, Victor Mixon, MD Clinic of Orthopedics and Traumatology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria.
W8: ELECTROMYOGRAPHY	**Moderator:** Georgi Dimitrov, MD Clinic of Neurology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria.
ORAL PRESENTATIONS (OP)	
SECTION I	**Pharmacy** Chaired by: Assoc. prof. Stanislav Tsankov, PhD Assoc. prof. Diana Pendicheva, MD, PhD
SECTION II	**Internal Medicine** Chaired by: Assoc. prof. Margarita Vlahova, MD, PhD Radina Atanasova, MD Boryana Zhelezarova, MD, PhD

SECTION III	**Varia** Chaired by: Prof. Tsetsa Doichinova, MD, PhD Assoc. prof. Dima Tsanova, MD, PhD Armine Grigoryan MD, PhD
SECTION IV	**PhD Students** Chaired by: Assoc. prof. Galya Stavreva MD, PhD
SECTION V	**Healthcare** Chaired by: Assoc. prof. Pencho Tonchev, MD, PhD
SECTION VI	**Neurology, Neurosurgery and Psychiatry** Chaired by: Aleksandar Todorov, MD, PhD
SECTION VII	**Obstetrics, Gynecology and Pediatrics** Chaired by: Assoc. prof. Angel Yordanov, MD, PhD Venetzia Botsova, MD, PhD
SECTION VIII	**Surgery, Orthopedics and Urology** Chaired by: Assoc. prof. Vladislav Dunev, MD, PhD Polina Marinova, MD, PhD Anislav Gabarski, MD, PhD
POSTER SESSIONS (P)	
POSTER SECTION	**P № 1 – 8** Chaired by: Assoc. prof. Zdravka Radionova, MD, PhD

CONFERENCE TIMETABLE

26 SEPTEMBER, 2022 (MONDAY)	
SEVENTH AUTUMN SCHOOL ON INNOVATIONS IN MEDICINE	
10:00 - 14:00	**Registration – TELEC**
13:00 - 13:45	**EPIDERMOLYSIS BULLOSA HEREDITARIA** **Assoc. Prof. IvelinaYordanova, MD, PhD** Department of Dermatology and Veneorology, University Hospital "Dr. G. Stranski", Pleven. Department of Dermatology, Veneorology and Allergology, Medical University – Pleven, Bulgaria.
13:45 - 14:00	**Coffee break**
14:00 - 14:45	**KL: UPDATES IN NEPHROLOGY FROM THE LAST DECADE** **Assoc. Prof. Prince Mohan Anand MD, FACP, FASN, FAST** Director Transplant Service, MUSC Lancaster. Lancaster Clinical Assoc. Professor of Medicine and Surgery, Division of Nephrology and Transplant Surgery, MUSC, Charleston, SC, USA.
14:45 - 15:00	**Coffee break**
15:00 - 16:00 **(ONLINE)**	**IMPACT OF SULT1A1, UGT2B7, CYP3A5, AND CYP2D6 POLYMORPHISMS ON RESPONSE AND TOXICITY IN TAMOXIFEN-TREATED BREAST CANCER PATIENTS** ***(online lecture)*** **Prof. Mohammad Safiqul Islam, MD, PhD** Laboratory of Pharmacogenomics and Molecular Biology, Department of Pharmacy, Faculty of Science, Noakhali Science and Technology University, Noakhali, Bangladesh.
16:00 - 16:45	**ALLERGIES IN PEDIATRICS – FOCUSING ON HONEY ALLERGIES** **Res. Asst. Hilal Karabağ Çitlak, MD** Pediatric Allergy and Immunology Division, Faculty of Medicine, Karadeniz Technical University, Ortahisar/Trabzon, Turkey.
27 SEPTEMBER, 2022 (TUESDAY)	
SEVENTH AUTUMN SCHOOL ON INNOVATIONS IN MEDICINE	
08:30 - 12:00	**Registration – TELEC**

10:45 - 12:00	**INHALATORY CORTICOSTEROIDS - STATE-OF-THE-ART AND PROSPECT FOR FURTHER DEVELOPMENTS** **Prof. Georgi Momekov, MPharm, PhD** Head of the Department of Pharmacology, Pharmacotherapy and Toxicology, Faculty of Pharmacy, Medical University of Sofia, Bulgaria. President of Bulgarian Pharmaceutical Science Society.
12:00 - 13:00	**Lunch break**
13:00 - 14:00	**OBSTRUCTIVE SLEEP APNEA** **Zlatina Ivanova, MD, PhD** Department of Cardiology, Pulmonology, Endorcrinology, Medical University - Pleven, Bulgaria. Clinic of Pulmonology, University Hospital “Dr. G. Stranski”, Pleven, Bulgaria
14:00 - 14:30	**Coffee Break**
14:30 - 15:15	**IDIOPATHIC PULMONARY FIBROSIS** **Assoc. Prof. Yavor Ivanov, MD, PhD** Department of Cardiology, Pulmonology, Endorcrinology, Medical University - Pleven, Bulgaria. Clinic of Pulmonology, University Hospital “Dr. G. Stranski”, Pleven, Bulgaria
15:15 - 16:00	**KL: INDUCED PLURIPOTENT STEM CELLS AND CRISPR/CAS9 – REVOLUTIONARY TOOLS AND ESSENTIAL BUILDING BLOCKS FOR FUTURE PERSONALIZED THERAPIES** **Prof. Ulrich Martin, MD** Head of Research Cardiac, Thoracic, Transplant and Vascular Surgery Centre (HTTG); Head of Leibniz Research Laboratory for Biotechnology and Artificial Organs (LEBAO); Hanover Medical School, Hannover, Germany
16:00 - 17:30	**OFFICIAL OPENING CEREMONY** **AL: ANTIBIOTIC RESISTANCE** **Prof. Todor Kantardzhiev, MD, PhD, DSc, M.H.M.** National Center of Infectious and Parasitic Diseases, Sofia President of the Bulgarian Society of Microbiologists

20:00	Welcome Party – Hotel "Balkan"
28 SEPTEMBER, 2022 (WEDNESDAY)	
08:00 - 14:00	**Registration – TELEC**
10:00 - 10:45	**KL: DOCTOR DETECTIVE: APPROACHING THE CHALLENGING PATIENT** **Timothy P. Gaul, MD, D.O.** Faculty of Family Medicine, UPMC McKeesport Hospital, Pennsylvania, USA. Director MEI Republic of North Macedonia. US Physician Project.
10:45 - 11:30	**PL: HEADACHES IN CHILDREN** **Maureen Flemming Gaul, MD, D.O.** Physician at CCP-MT View Pediatrics, Natrona Heights, Pennsylvania, USA. Director MEI Republic of North Macedonia, US Physician Project.
11:30 - 11:45	**Coffee break**
11:45 - 12:30	**OP: PHARMACY SECTION**
12:30 - 13:30	**Lunch break**
13:30 - 14:15	**PL: PRACTICE OF CASE-BASED CLINICAL REASONING (CBCR) EDUCATION AT THE FACULTY OF INTERNAL DISEASES AT TBILISI STATE MEDICAL UNIVERSITY.** **Nino Kandelaki, MD, PHD** Faculty of Internal Diseases, Tbilisi State Medical University (TSMU), Tbilisi, Georgia
14:15 - 15:00	**INTERNATIONAL MOBILITY UNDER THE "ERASMUS+" MEETING:** FOCUS ON THE 2021-2027 ERASMUS+ PROGRAM – NEW OPPORTUNITIES FOR MOBILITY AND COOPERATION IN HIGHER EDUCATION. **Moderators:** Erasmus+ experts, International and Project Activities Department, Medical University – Pleven, Bulgaria **PL: ORGANIZATION OF ERASMUS+ MOBILITY ACTIVITIES AT TBILISI STATE MEDICAL UNIVERSITY (TSMU), TBILISI, GEORGIA. OPPORTUNITIES FOR EDUCATIONAL AND SCIENTIFIC COLLABORATION WITH THE MEDICAL UNIVERSITY – PLEVEN, PLEVEN, BULGARIA** **Nino Kandelaki, MD, PHD** Erasmus + Institutional Coordinator at International Relations Department,TSMU, Tbilisi, Georgia

15:00 - 18:00	**W1: SUTURING SKILLS WITH PRACTICE ON REAL TISSUES** **Moderator:** Dobromir Nguen, MD
15:00 - 18:00	**W2: CLINICAL DIVERSITY IN ENT PRACTICE** **Moderator:** Assoc. prof. Todor Popov, MD, PhD
15:00 - 18:00	**W3: CPR AND AIRWAY MANAGEMENT** **Moderator:** Ivan Malkodanski, MD, PhD
15:00 - 18:00	**W4: COMPUTER-AIDED DRUG DESIGN** **Moderators:** Assist. prof. Aleksandar Pashev, Assist. prof. Teodora Aleksandrova
15:00 - 18:00	**W5: DIFFUSION AND SPIROMETRY** **Moderator:** Nikolay Kyuchukov, MD, PhD
15:00 - 18:00	**W6: MINIMALLY INVASIVE SURGERY** **Moderator:** Martin Karamanliev, MD, PhD
15:00 - 18:00	**W7: PLASTERING BASICS** **Moderators:** Emil Simeonov, MD, PhD, Victor Mixon, MD
15:00 - 18:00	**W8: ELECTROMYOGRAPHY** **Moderator:** Georgi Dimitrov, MD
16:00 - 18:00	**KL: CLINICAL DIVERSITY IN ENT PRACTICE: DIAGNOSTIC AND SURGICALCHALLENGES FOR THE DOCTOR.** **Assoc. Prof. Todor Popov, MD, PhD** Department of ENT Diseases and Head and Neck Surgery, Medical University - Sofia University Hospital “Tsaritsa Yoanna” - ISUL, Sofia, Bulgaria. **WORKSHOP ON CLINICAL DIVERSITY IN ENT PRACTICE: PRESENTATION OF CLINICAL CASES AND DISCUSSION ON CLASSIC AND NOVEL METHODS AND SURGICAL TECHNIQUES IN OTORHINOLARYNGOLOGY.** **Moderators: Assoc. prof. Todor Popov, MD, PhD –** Department of ENT diseases and Head and Neck Surgery, Medical University - Sofia, University Hospital “Tsaritsa Yoanna” - ISUL, Sofia, Bulgaria. **Asst. prof. Boris Duhlenski, MD** – Department of ENT diseases and Head and Neck Surgery, Medical University - Pleven; ENT Clinic, University Hospital “Dr. Georgi Stranski”, Pleven, Bulgaria.

29 SEPTEMBER, 2022 (THURSDAY)	
09:00 - 10:45	**OP: INTERNAL MEDICINE SECTION**
10:45 - 11:15	**Coffee break**
11:15 - 12:30	**KL: THREE-DIMENSIONAL MODELING AND PRINTING IN CONGENITAL CARDIAC SURGERY** PD Dr. med. Philippe Grieshaber, MD, PhD Senior Physician Specialist in Heart Surgery and Intensive Care Medicine. Certificate “Surgery of Congenital Heart Defects”, Pediatric Cardiac Surgery Section, Cardiac Surgery Clinic, University Hospital Heidelberg, Medical Faculty, Heidelberg University, Germany.
12:30 - 13:30	**Lunch break**
13:00 - 14:45	**OP: VARIA SECTION**
14:45 - 15:30	**OP: PhD STUDENTS SECTION**
15:30 - 15:45	Coffee break
15:45 - 16:00	**OP: HEALTH CARE SECTION**
16:00 - 18:00	**WS: DIFFUSION AND SPIROMETRY** **Moderator: Nikolay Kyuchukov, MD, PhD** Department of Cardiology, Pulmonology, Endorcrinology, MU-Pleven, Bulgaria. Clinic of Pulmonology, University Hospital “Dr. G. Stranski”, Pleven, Bulgaria
20:00	Official Dinner – Hotel “Rostov”
30 SEPTEMBER, 2022 (FRIDAY)	
08:00 - 09:00	**OP: NEUROLOGY, NEUROSURGERY AND PSYCHIATRY SECTION**
09:00 - 10:15	**OP: OBSTETRICS, GYNECOLOGY AND PEDIATRICS SECTION**
10:15 - 10:30	Coffee break
10:30 - 13:00	**OP: SURGERY, ORTHOPEDICS AND UROLOGY SECTION**
13:00 - 14:00	Lunch break
14:00 - 14:30	**POSTER SESSION**
16:30	**OFFICIAL CLOSING CEREMONY**

SPONSORS AND MEDIA PARTNERS

XIX International Medical Scientific Conference for Students and Young Doctors is sponsored by:

GEDEON RICHTER

credoweb™

MEDICAL UNIVERSITY - PLEVEN

WE KINDLY THANK ALL OUR SPONSORS AND PARTNERS FOR THEIR CONSISTENT SUPPORT AND COOPERATION!

SEVENTH AUTUMN SCHOOL

ON INNOVATIONS IN MEDICINE

26 - 27 September 2022

UPDATES IN NEPHROLOGY FROM THE LAST DECADE

Prince Mohan Anand MD, FACP, FASN, FAST
Director Transplant Service, MUSC Lancaster, Lancaster, SC 29720, USA
Clinical Associate Professor of Medicine and Surgery, Division of Nephrology and Transplant Surgery, MUSC, Charleston, SC, USA

Nephrology has changed significantly over the past decade. We have learned pathophysiology of diseases, reclassified diseases based on pathophysiology rather than pathology, and have new treatments to help patients. In the lecture, I will discuss FSGS, MPGN classification and treatment. I will discuss updates from the world of kidney transplant and renal genetics. I will also touch upon SGLT2, and GLP1 analogous.

IMPACT OF SULT1A1, UGT2B7, CYP3A5, AND CYP2D6 POLYMORPHISMS ON RESPONSE AND TOXICITY IN TAMOXIFEN-TREATED BREAST CANCER PATIENTS

Islam M.
Department of Pharmacy, Noakhali Science and Technology University
Correspondence: research_safiq@yahoo.com

AIMS
This study aimed to investigate the prognostic and predictive value of SULT1A1*2, UGT2B7*2, CYP3A5*3, CYP2D6*4, and CYP2D6*10 polymorphisms in tamoxifen-treated patients to correlate the genotype data pharmacogenetically with response and toxicity.
METHODS
Three hundred eighty-eight patients with invasive breast cancers who took tamoxifen 20 mg/day orally for eight weeks or more were recruited. Response Evaluation Criteria In Solid Tumours (RECIST) were used to evaluate the pathological response of primary tumour and axillary lymph nodes and the assessment of chemotherapy-induced toxicity was done with the help of Common Terminology Criteria for Adverse Events (CTCAE) v4. PCR-RFLP method was used to analyze the genetic polymorphisms.
RESULTS
Patients carrying AA (aOR=2.36) and GA genotype (aOR=2.93) of SULT1A1*2, CT polymorph (aOR=4.21) of UGT2B7*2, AG polymorph (aOR=5.63) of CYP3A5*3, CT and TT of CYP2D6*10 (aOR=29.08 and 1.33E+15, respectively) showed significant response in tamoxifen-treated patients. Only patients carrying CT polymorph of CYP2D6*10 showed a significant relationship with hot flashes (aOR=8.40E+07). Patients with CT polymorph (aOR=2.61) of UGT2B7*2 and both CT (aOR=1.77E+08) and TT (aOR=2.32E+08) polymorphs of CYP2D6*10 showed significant association with depression. Both GA (aOR=1.58E+07) and AA (aOR=6.31E+06) polymorph of SULT1A1*2, CT polymorphs (aOR=6.34E+06) of UGT2B7*2, both CT (aOR=4.27E+06) and TT (aOR=6.44E+06) polymorphs of CYP2D6*10 showed significant relation with decreased libido. Again, CT (aOR=1.47E+08) and TT (aOR=1.59E+08) polymorphs of CYP2D6*10 showed significant relation with vaginal dryness.
CONCLUSION
This study suggests that SULT1A1*2, UGT2B7*2, CYP3A5*3, CYP2D6*4, and CYP2D6*10 polymorphisms are significantly correlated with response and toxicity among Bangladeshi tamoxifen-treated breast cancer patients.

KEY WORDS: Tamoxifen; SULT1A1; UGT2B7; CYP3A5; CYP2D6.

HONEY ALLERGY

Res. Asst. Hilal Karabağ Çitlak, MD
Pediatric Allergy and Immunology Division, Faculty of Medicine, Karadeniz Technical University, Ortahisar/Trabzon, Turkey.

Food allergies are one of the leading health problems of childhood. In recent studies, it has been observed that there is an increase in the frequency of food allergy and the severity of its clinical findings, and it has a more permanent course.
Honey allergy is a rare form of food allergy in childhood. The number of cases reported in the literature is limited. It can cause mild symptoms or present as life-threatening severe anaphylaxis.
Honey contains flower nectar, pollen and bee components.
Various studies have been conducted to identify specific antigenic structures of honey.
Honey allergy can be caused by honey itself, pollen (Compositae), bee secretions, and parts of the insect. Royal jelly, which is the secretion of worker bees, causes anaphylaxis and asthma exacerbations.
The pollen content of honey varies according to the place, method and season where the honey is collected.
Since the allergenic structures of honey are not yet well defined, serum specific IgE level and prick-to-prick skin tests, which are the methods used to investigate honey allergy, are helpful in diagnosis. The gold standard is the standardized oral provocation test.

INDUCED PLURIPOTENT STEM CELLS AND CRISPR/CAS9 – REVOLUTIONARY TOOLS AND ESSENTIAL BUILDING BLOCKS FOR FUTURE PERSONALIZED THERAPIES

Prof. Dr. Ulrich Martin
Leibniz Research Laboratories for Biotechnology and Artificial Organs, Clinic for Cardiothoracic, Transplantation & Vascular Surgery,
Rebirth-Center for Regenerative Medicine,
Hannover Medical School,
Hannover, Germany

The term personalized therapies describes a variety of therapeutic concepts for customized treatment of patients that in most cases rely on novel technologies developed during the recent two decades. New diagnostic opportunities such as genome sequencing technologies including single cell sequencing and global transcriptome analyses to detect oncogenic mutations, as well as proteomics and epigenomics that have already entered the clinical arena allow for personalized treatment of cancer patients.
This presentation will focus on own research that is based on two technological breakthroughs. Both technologies, the reprogramming of somatic cells into human induced pluripotent stem cells (hiPSCs), and targeted genome engineering, especially CRISPR/Cas9 and related systems, have already been recognized with a Noble prize because of their obvious implication for future personalized medicine.
Meanwhile hiPSCs are routinely generated from easily accessible cell sources such as hair or blood cells. hiPSCs have far-reaching potential for proliferation and differentiation. Thus, their availability offers novel opportunities in basic research, disease modelling, drug discovery, toxicology studies, and the development of (personalized) cellular therapies. Meanwhile major progress has been achieved concerning targeted differentiation of hiPSCs into a multitude of different cell types in the body. For instance, blood, heart and vascular cells can be produced via optimized bioprocessing in fully controlled bioreactor systems and chemically defined culture media, conditions that are generally compatible with regulatory GMP requirements. For all of these applications, the genetic engineering of pluripotent stem cells is required. Gene editing via CRISPR/Cas9 or related systems can be applied to introduce reporter or therapeutic transgenes into hiPSCs, but also to introduce or repair known pathogenic mutations, either for modelling the disease in a dish or to generate “healthy” therapeutic cell products. While targeted gene editing is currently not sufficient enough for *in vivo* gene therapy, there are currently major efforts to change that e.g. by means of non-integrating vector systems or liposome technologies that were recently successfully applied for application of SARS-CoV2

vaccines.

It is noteworthy, that by now iPSC-based cell therapies are are already explored regarding safety and efficacy in preclinical and even clinical studies, for instance aiming at treatment of blindness, neurological disorders, diabetes or heart repair after myocardial infarction. On the long term, it is expected that pluripotent stem cell technologies and advancement in genome engineering will revolutionize therapeutic options in particular for patients suffering from inherited and age-related diseases.

LECTURES

KEYNOTE LECTURES

THE WONDROUS & ALLURING DIVERSITY OF ENT

Assoc. prof. Todor Popov, MD, PhD*, Assist. prof. Boris Duhlenski, MD**
****Department of ENT, Medical University – Sofia, Bulgaria***
*****Department of ENT, Medical University – Pleven, Bulgaria***
Corresponding autor: duhlenski_b@abv.bg

This is a joint lecture dedicated to present the diversity of ENT and its surgical subdomains. Series of cases from the practice of the authors would cover both functional and oncological surgery – the intricate finesse of otosurgery with its delicate structures under high microscope magnification, the world of endoscopic endonasal surgery reaching the boundaries of the skull base and beyond and finally culminating with the massive and cumbersome head and neck oncosurgery with its extensive resections and corresponding reconstruction possibilities.

KEY WORDS: ENT surgery, otosurgery, head and neck oncosurgery.

THREE-DIMENSIONAL MODELING AND PRINTING IN CONGENITAL CARDIAC SURGERY

PD Dr. med. Philippe Grieshaber, MD, PhD
Senior Physician Specialist in Heart Surgery and Intensive Care medicine
Certificate "Surgery of Congenital Heart Defects"
Pediatric Cardiac Surgery Section, Cardiac Surgery Clinic, University Hospital Heidelberg
Medical Faculty, Heidelberg University, Germany

The anatomy of congenital cardiac malformations is usually assessed using echocardiography, cardiac catheterization or cross-sectional imaging using computed tomography or magnetic resonance imaging. However, in certain complex malformations, the anatomy and spatial relationships cannot be sufficiently characterized using these modalities. Here, 3D printing and modeling can be used to create individualized heart models for a thorough understanding of the anatomy and for therapeutical planning. Furthermore, it is a useful tool for teaching and training of medical professionals. Also surgical procedures can be trained using 3D models. High costs, material and personnel resource requirements of the generating process of 3D models and prints currently limit the routine use of these techniques. We developed a low-cost open-source workflow to 3D modeling and printing in order to increase its suitability for routine use.

INTERNATIONAL MOBILITY UNDER THE 2021-2027 ERASMUS+ PROGRAM: FOCUS ON THE NEW OPPORTUNITIES FOR MOBILITY AND COOPERATION IN HIGHER EDUCATION

Diana Pendicheva-Duhlenska*, Hristina Lebanova**, Nikolina Angelova, Albena Tancheva****, Milislava Gancheva********
****Vice-Rector for International and Project Activities, MU-Pleven, Bulgaria***
*****Institutional Erasmus+ Coordinators MU-Pleven, Bulgaria***
******Head of the Erasmus+ Department, MU-Pleven, Bulgaria***
*******Expert Erasmus+ Department, MU-Pleven, Bulgaria***
********Expert International and Internal Mobility, MU-Pleven, Bulgaria***
Presenting author: Nikolina Angelova
Correspondence: iro@mu-pleven.bg

We will present the opportunities for student and youth mobility in higher education under the new 2021-2027 Erasmus+ program. Medical University – Pleven is awarded with Erasmus Charter for Higher Education 2021 – 2027 by the European Commission, which provides the general quality framework for European and international cooperation activities.
Focusing on the bilateral agreements of Medical University – Pleven with universities from program and partner countries will elucidate the most important steps for effective administration of the student mobility for study and traineeship. Incoming students from Italy, Slovakia, Spain and Turkey will share information about their home universities and the motivation to come to Medical University – Pleven. The experts from the Erasmus+ Department will explain application conditions, recognition, financial support, required documents and inter-institutional bilateral agreements.

KEY WORDS: "Erasmus+" program, student exchange, staff exchange, Medical university – Pleven.

WORKSHOPS

WORKSHOP 1: SUTURING SKILLS WITH PRACTICE ON REAL TISSUES

Moderator: ***Dobromir Nguen, MD***
First Surgical Clinic, UMHAT "Dr. Georgi Stranski" Pleven, Bulgaria

Surgical suturing and knot tying are one of the basic medical procedures which any doctor should be able to perform. This workshop will give the participants opportunity to practice different types of surgical sutures and different techniques for tying surgical knots.

WORKSHOP 2: CPR AND AIRWAY MANAGEMENT

Moderator: ***Ivan Malkodanski, MD, PhD***
University Hospital "Saint Marina" – Pleven, Bulgaria

Every doctor, no matter what specialty they practice, must be familiar with the indications and techniques for intervention in the respiratory system. The main approach involves providing clear airways, protection from aspiration and ensuring adequate oxygenation and ventilation. This workshop describes the steps involved in assessing the airways, ensuring the rapid implementation of endotracheal intubation (RSI), as well as the necessary steps when it comes to cases with unsuccessful or hard intubation.

WORKSHOP 3: COMPUTER-AIDED DRUG DESIGN

Moderator: ***Assist. Prof. Aleksandar Pashev, Assist. Prof. Teodora Aleksandrova***
Department of Chemistry and Biochemistry, Faculty of Pharmacy, Medical University Pleven, Bulgaria

Computer-aided drug design is of primary significance in the process of discovering new drug substances and it includes computer-based approaches, which aim to analyse key regions and interactions in macromolecules, also what is the bond between the chemical structure and the biological activity of the ligands.
In the past decades these methods are successfully used in the search and foreseeing of new drugs and biologically active substances. Molecular docking is the key tool which serves the purpose of foreseeing the pattern and the energy of bonding between small molecules in the active centre of the investigated biological target and in that way

it gives information for the basic physicochemical properties which define the affinity of the molecules in the binding centre. During the scientific session the participants will get to know the software program for molecular docking and virtual screening AutoDock Vina and the graphic program for molecular visualisation PyMOL. This workshop is for those who want to acquire basic knowledge about the preparation and optimisation of ligands and receptors by specialised for this programs as well as doing docking simulations and analysing the present results aiming determination of the pharmacophoric groups and striving for future optimisation of the molecules.

WORKSHOP 4: DIFFUSION AND SPIROMETRY

Moderator: ***Nikolay Kyuchukov, MD, PhD***
Department of Cardiology, Pulmonology, Endocrinology, Medical University – Pleven, Bulgaria
Clinic of Pulmonology, University Hospital "Dr. G. Stranski", Pleven, Bulgaria.

Diffusion and spirometry are the basic diagnostic methods of pulmonology. They are helpful in assessing breathing patterns that identify conditions such as asthma, pulmonary fibrosis, cystic fibrosis, and COPD. Participants in this workshop will be given the opportunity to learn how to perform them. In addition, a demonstration of a new innovative method to asses the pulmonary function will be presented: Body Plethysmography.

WORKSHOP 5: MINIMALLY INVASIVE SURGERY

Moderator: ***Martin Karamanliev, MD, PhD***
Department of Surgical Oncology, University Hospital "Dr. G. Stranski", Pleven, Bulgaria

Minimally invasive surgery is the new surgical trend. Nowadays more and more laparoscopic and robotic surgeries are being performed for less traumatic outcomes for the patients. If you want to learn the intricate methods of laparoscopic surgery and how it differs from traditional open surgery, this workshop is for you! Participants will acquire the basic knowledge of minimally invasive surgery and will have the opportunities to practice it.

WORKSHOP 6: CLINICAL DIVERSITY IN ENT PRACTICE

Moderators: ***Assoc. prof. Todor Popov, MD, PhD*, Assist. prof. Boris Duhlenski, MD*****
****Department of ENT, Medical University – Sofia, Bulgaria***
*****Department of ENT, Medical University – Pleven, Bulgaria***

Hearing and balance, swallowing and speech, breathing and sleep issues, allergies and sinuses, head and neck cancer, skin disorders, even facial plastic surgery are just some of the conditions that ENT specialists treat. This workshop will consist of presentations of clinical cases and discussion on classic and novel methods as well as surgical techniques in otorhinolaryngology.

WORKSHOP 7: PLASTERING BASICS

Moderators: ***Emil Simeonov, MD, PhD, Viktor Mikson, MD***
Clinic of Orthopedics and Traumatology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria

Plastering is one of the fundamental therapeutic procedures used in orthopedics and traumatology. This workshop will allow the participants to learn about the basics of plastering and will be able to actively be involved in placing gypsum.

WORKSHOP 8: ELECTROMYOGRAPHY

Moderator: ***Georgi Dimitrov, MD***
Clinic of Neurology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria

Electromyography (EMG) is a diagnostic procedure to assess the health of muscles and the nerve cells that control them (motor neurons). EMG results can reveal nerve dysfunction, muscle dysfunction or problems with nerve-to-muscle signal transmission. This workshop will give the opportunity to learn the basics of EMG and to practice the procedure.

VARIA SECTION

CHAIRMEN:

Prof. Tsetsa Doichinova, MD, PhD

Assoc. prof. Dima Tsanova, MD, PhD

Armine Grigoryan, MD, PhD

SECRETARY:

Boryana Hristova, OC

Time is generally the best doctor

Ovid

THE BLACK DEATH IN HISTORY, CUSTOMS AND ART OF BULGARIA

Ivanov G.G.*; Edreva V.E.**
****Clinical Microbiology Study Group, Medical University - Pleven, Bulgaria.***
*****Department of Microbiology and Virology, Medical University - Pleven, Bulgaria.***
Presenting author: Ivanov G.G.
Correspondence: galinivnv@icloud.com

INTRODUCTION
Plague is an acute infectious disease that has taken millions of human lives. Today it has not lost its significance due to the possibility of the causative agent being used as a biological weapon.
AIMS
To find information on the spread of plague on Bulgarian lands in the distant and recent past. To look for specific rites and rituals to fight the disease, as well as its place in Bulgarian art and literature.
METHODS
Data from archeological studies, historical facts, church documents and descriptions from ethnographic research were used.
RESULTS
The plague was raging on the Bulgarian lands even before the Ottoman rule. Periodic explosions have been observed over the centuries due to demographic, commercial, socio-economic reasons. The Bulgarians had unique rituals for banishing the disease and folk medicine remedies for its treatment.
CONCLUSION
Due to the fact that the provided data are extremely poorly known, our announcement will show the contribution of Bulgarian historians, clergymen and archaeologists to the study of the disease.

KEY WORDS: plague, history, customs, art, Bulgaria

ABNORMAL HIGH ORIGIN OF TESTICULAR ARTERY

Kiran A.*, Thomas S.K.*, Sundar A.*, Marinova D.**
****Medical University – Pleven, Bulgaria.***
*****Department of Anatomy, Medical University – Pleven, Bulgaria.***
Presenting Author: Kiran A.
Correspondence: amritakiran1204@gmail.com

AIMS
Testicular arteries usually arise from the abdominal Aorta, but variations in testicular and renal vessels are common. Awareness about these variations is of high importance to surgeons to increase their surgical precision and avoid any iatrogenic injuries. Through this case report we present two rare variations of high origin of testicular artery arising from the renal artery.
METHODS
Following dissections of the retro-peritoneum and preparation of the abdominal aorta and its branches, unusual high origins of TAs was observed in two cadavers in the anatomy department in MU Pleven.
RESULTS
One cadaver presented with a right testicular artery arising from the right renal artery near the hilum of the kidney. The rest of the course of the testicular artery was normal. This variation was combined with cryptorchidism and a shorter testicular artery on the contralateral side. In the second cadaver there were bilateral accessory renal arteries. The left testicular artery originated from the left inferior accessory renal artery midway between its origin and the renal hilum. A high origin of the TA from the abdominal aorta, as in our case report, has been noted in only a few instances in the literature, namely, S. Asala et al, who noted in their study an incidence of only 4.7%.
CONCLUSION
These variations in the testicular and renal arteries have implication in procedures like orchidopexy, renal transplantation and nephrectomy. Thus, with the advent of novel surgical and invasive diagnostic procedures understanding of these rare variations becomes very crucial.

KEY WORDS: testicular artery, renal artery

THE MECHANISM OF INVASION OF PLASMODIUM PARASITES THROUGH THE ERYTHROCYTE CELL MEMBRANE

Sulova N. V.*, Dimitrov D. Ts.*
****Faculty of Medicine, Medical University – Varna, Bulgaria.***
Presenting author: Sulova N. V.
Correspondence: nikisulova@gmail.com

AIMS
The purpose of this article is to summarize the current information about the mechanism of erythrocyte invasion of Plasmodium spp. and investigate the difficulties and future possibilities of treating malaria. Furthermore, we intend to showcase the essential gaps in our knowledge that need to be filled in order to open the possibility of developing new antimalarial drugs.
METHODS
Detailed research of the life cycle of Plasmodium spp. parasites and especially of the erythrocytic schizogony phase have illustrated the main steps and the mechanism of invasion of tissue merozoites. Real-time imaging, genetic knock-out experiments, and other research have helped determine the specific parasite and host receptors that facilitate the invasion of red blood cells.
RESULTS
Efforts to create drugs that block malarial proteases, which have an important part in the invasion process, have not yet yielded the desired results, but studies show that it creates new ways for the passage of substances (such as cytotoxic drugs) by diffusion.
CONCLUSION
Malaria remains a significant threat despite current preventive measures and extensive research. Of great importance for the treatment of this disease is studying the mechanism of erythrocyte invasion, necessary for the multiplication of the parasite. Understanding the molecular nature of this process and how it is regulated will greatly aid the development of antimalarial drugs.

KEY WORDS: malaria, erythrocyte cell membrane, plasmodium, merozoite, invasion.

INFLUENCE OF IONIZING RADIATION ON INVERTASE ENZYME ACTIVITY

Marinov P.*, Tsarevska N.**, Balashev K.***
**** Medical University - Pleven, Bulgaria.***
***** Medical University - Sofia, Bulgaria.***
****** Sofia University, Faculty of Chemistry and Pharmacy, Dept. Physical Chemistry, Sofia, Bulgaria.***
Presenting author: Tsarevska N.
Correspondence: nevitsarevska@gmail.com

AIMS
The effect of ionizing radiation on enzymes and enzyme systems is decisive for the cellular functions. That leads to the occurrence of chemical changes in certain atomic groups in the active centers of enzyme molecules, which subsequently causes inhibition of their activities. Therefore, it is of particular importance to understand the molecular and kinetic mechanisms of action of the ionizing radiation on these systems in order to find the appropriate experimental protocols and kinetic models which can be applied to specific enzymes and their substrates.
METHODS
We used polarimetric measurements as an experimental approach to investigate the influence of ionizing radiation on the catalytic action of the enzyme invertase with a sucrose substrate.
RESULTS
A novel experimental protocol is proposed, which includes the following stages: obtaining a calibration curve of the dependence of the concentration of sucrose as a function of the optical angle of rotation and obtaining kinetic curves in the course of the sugar inversion of sucrose under the action of the enzyme invertase and at different doses of irradiation of the enzyme solution.
CONCLUSION
In the experiments, the exact values of the main kinetic constants which characterize the enzyme kinetics at different doses of irradiation (from 0.1 to 1 Gy) of the enzyme solution were obtained, and based on that suggested changes that there are changes in the active center of the enzyme after irradiation.

KEY WORDS: enzyme systems, ionizing radiation, polarimetric measurements, kinetic mechanisms, novel protocol.

A CASE OF SUCCESSFUL RADIOSURGERY (SBRT) RE-IRRADIATION TREATMENT OF CERVICAL CANCER PELVIC RECURRENCE

Atanasova B.*, Yordanov A.**, Ilieva P., Karagyozov I.****, Ivanov I.*****, Petrov I.*********
****Radiation Oncology and Radiosurgery Department, „Heart and Brain" Hospital – Pleven, Bulgaria.***
*****Oncological Gynecology Department, UMHAT " Dr. Georgi Stranski" – Pleven, Bulgaria.***
******Nuclear Medicine Laboratory, Medical Center "Saint Marina – diagnostics and therapy" – Pleven, Bulgaria.***
*******Department of Gynecology and Pelvic Surgery, VITA Hospital – Sofia.***
********Pathology Clinic, UMHAT " Dr. Georgi Stranski" – Pleven, Bulgaria.***
*********Medical Physics Department, "Heart and Brain" Hospital – Pleven, Bulgaria.***
Presenting author: Atanasova B.
Correspondence: bobobobo570@gmail.com

INTRODUCTION

Estimated 1/3 of all cervical cancer patients will have recurrence, most within 2-3 years after initial treatment, leaving many with limited treatment options, poor prognosis. Many are inoperable. Regional failures frequently include areas of prior radiotherapy (RT), not allowing for re-irradiation with conventional techniques. Chemotherapy is less effective as salvage treatment. Stereotactic body radiation therapy (SBRT, "radiosurgery") is emerging as safe and effective alternative, possible even in re-irradiation setting because of the highly conformal and precise radiation delivery.

AIMS

We present a case of cervical cancer localized pelvic recurrence successfully treated with SBRT.

METHODS

Radical hysterectomy class 3 with total pelvic nodal dissection was performed on a 61 y.o. with cervical cancer. Histology: SCC (3 sm) G3, perineural, perivasal invasion, emboli in the lymphatics, deep stromal invasion, 1 (left) lymph node with micrometastasis. Post-operative radiochemotherapy of the cervical bed and regional nodal volumes. PET-CT 6mo.: - no lesions. PET-CT 22mo. - left presacral lesion, confirmed as disease progression on PET-CT 29mo. (31/30mm). MRI: lesion adjacent to, not infiltrating the rectum. 5x5Gy SBRT performed.

RESULTS

PET-CT 2mo.: lesion decreased in size, non-homogenous, necrotic. Laparotomy

necrotic formation separated from adjacent tissues and removed. Histology: soft tissues with chronic inflammatory infiltration and fibrosis. No residual tumor evident.

CONCLUSION

SBRT is effective treatment for recurrent gynecologic malignancies in the pelvis, possible even with previous RT. It can delay chemotherapy, requires minimal patient effort and could significantly improve local control, survival and quality of life.

KEY WORDS: cervical cancer, radiotherapy, radiosurgery, SBRT, re-irradiation.

TO HIGHLIGHT A DIAGNOSTIC CHALLENGE IN NON-HODGKIN'S FOLLICULAR LYMPHOMA – A CASE REPORT

Abdullahi M.*, D'Silva M.*, Mehta A.*, Vladova P.**, Iliev S.**
****Medical University - Pleven, Bulgaria.***
*****Department of General Surgery, UMHAT 'Dr. Georgi Stranski' - Pleven, Bulgaria.***
Presenting author: D'Silva M.
Correspondence: mehtaananya27@gmail.com

AIMS
Non-Hodgkin's Follicular Lymphoma (NHFL) is a slow growing B-cell lymphoma, presenting with multi-systemic symptoms. Diagnosis requires a co-ordinated approach and communication between various specialities. Late/Misdiagnosis can lead to poor prognosis and increase morbidity and mortality.
METHODS
We present a case report of a 58-year-old female patient, who consulted various departments including Allergology, Haematology and Gastroenterology over the course of 2 years without any definitive diagnosis or treatment. Eventually, she presented to the Emergency department at UMHAT 'Dr Georgi Stranski' with anorexia-cachexia, ileus and lymphadenopathy.
RESULTS
A number of differential diagnoses were ruled out, including mechanical ileus. No evidence of onco-haematological disease from an extended panel of immunophenotyping and peripheral blood was found. The patient's condition deteriorated in the ICU with hypoglycaemia and metabolic acidosis. An inguinal lymph node biopsy was taken during her stay in the ICU, soon after which she suffered an ischemic stroke that proved fatal.
CONCLUSION
Appropriate screening methods should have been implemented at an earlier stage with a co-ordinated multi-disciplinary approach. Illnesses such as NHFL often present with obscure symptoms that may lead to several referrals across different departments. Thorough investigations and open communication lines between specialities would have led to a better prognosis in this case and subsequent ones.

KEY WORDS: Non-Hodgkin's Follicular Lymphoma, diagnostic challenge, multi-disciplinary approach.

CASE REPORT OF OCULAR CICATRICIAL PEMPHIGOID

Nikolova I*, Murgova S.**, Balchev G.**
****Medical University – Pleven, Bulgaria.***
*****Department of Ophtalmology, UMHAT "Dr. Georgi Stranski" – Pleven, Bulgaria.***
Presenting author: Nikolova I.
Correspondence: ina.nik986@gmail.com

INTRODUCTION

OCP is a chronic progressive autoimmune disease, presenting with subepithelial fibrosis, leading to shortening of the fornix, symblepharon, eyelid edge deformation, trichiasis.

AIMS

To present a case of a patient with ocular cicatrical pemphigoid and emphasize on the multidisciplinary approach in the treatment.

MATERIALS AND METHODS

This case report will use a 64 year old female patient with a history of chronic conjunctivitis and complaints of severe decrease of visual acuity. After conservative therapy and several different surgical operations, vision acuity and eye movements got improved.

CONCLUSION

OCP is a difficult to treat disease with many surgical interventions and poor prognosis about vision acuity. Multidisciplinary approach needs to be applied for higher success.

KEY WORDS: ocular cicatrical pemphigoid, mucose membrane pemphigoid.

STAPHYLOCOCCUS AUREUS ANTIMICROBIAL RESISTANCE CHANGE – ANALYSIS FOR THE PERIOD 2018-2021

Georgiev M.E.*, Mirochnik A.P.*, Kamenov N. **, Edreva V.E.***
****Clinical microbiology group, Medical University – Pleven, Bulgaria.***
*****Medical collage, Medical University – Pleven, Bulgaria.***
******Department of microbiology and virology, Medical University – Pleven, Bulgaria.***
Presenting author: Georgiev M.E.
Correspondence: milen.evelinov@gmail.com

AIMS
To study the spectrum of the infections caused by Staphylococcus aureus before and during the pandemic of COVID-19. To search for differences in resistance to antimicrobials of isolated strains because of their increased usage during pandemics.
MATERIALS AND METHODS
The study includes 735 strains Staphylococcus aureus, isolated from 686 patients, treated in UMHAT-Pleven for the periods 01.01.2018-31.12.2018 and 01.01.2021-31.12.2021. Isolation of the strains and susceptibility to antimicrobials were done by conventional methods and automated systems. The phenotypic mechanisms of resistance were found by cephoxitin test and D-test.
RESULTS
For 2018 239 (52.18%) of the patients are male and 179 (42.82%) are female. For 2021 147 (54.85%) of the patients are male and 121 (45.15%) are female. In the analyzed periods the number of patients treated in surgical clinics prevails – 246 (58.85%) for 2018 and 155 (57.85%) for 2021. The most common materials for microbiology were wound discharges – 271 (60.49%) for 2018 and 172 (59.93%) for 2021, followed by materials from the respiratory system – 129 (28.79%) and 64 (22.30%), resp. A significant increase in resistance to macrolides, lincosamides and fluoroquinolones was observed: from 13.8% to 22.3% to Erythromycin; from 7.14% to 19.5% to Clindamycin and from 3.35% to 4.5% to Levofloxacin.
CONCLUSION
We didn't find any significant demographic differences between patients and infection profile, caused by Staphylococcus aureus for the studied periods. However, there is significant increase in antibiotic resistance of Staphylococcus aureus to the most widely used antimicrobials for bacterial complications during the pandemic of COVID-19.

KEY WORDS: Staphylococcus aureus, resistance, macrolides, lincosamides, fluoroquinolones

ANTI-VEGF TREATMENT OF NEOVASCULAR AGE-RELATED MACULAR DEGENERATION

Goranova E.* Murgova S.**
****Medical University – Pleven, Bulgaria.***
*****Department of Ophtalmology, UMHAT "Dr. Georgi Stranski" – Pleven, Bulgaria.***
Presenting author: Goranova E.
Correspondence: evitogoranova@gmail.com

AIMS
Wet age-related macular degeneration /ARMD/ is the most common cause of visual impairment among elderly patients, via choroidal neovascularisation - process driven by vascular endothelial growth factor /VEGF/. The aim of this study is to present clinical cases of patients with wet ARMD and their outcome of anti – VEGF treatment with the recently approved in Europe brolucizumab /Beovu/. Furthermore, reviewing the milestones in the molecular and clinical development of brolucizumab, the first single-chain antibody fragment, designed specifically for intraocular use.
METHODS
We summarize the clinical evidence of brolucizumab administration in two cases of patients with wet ARMD, admitted to UMHAT "Dr. Georgi Stranski" – Pleven. Three applications were made at an interval of one month in between, followed by analyzing the outcomes.
RESULTS
The unique molecular design of brolucizumab results in low molecular weight, allowing more concentrated molar dose of one intravitreal injection. An improvement in visual acuity was observed in both patients. No side effects were recorded.
CONCLUSION
In the EU, an estimated 1.7 million people are affected by wet ARMD. The clinical data on brolucizumab provides evidence of sustained disease control with highly effective outcomes, robust in visual acuity, superior fluid resolution and longer durability of effect than any other anti-VEGF administration.

KEY WORDS: brolucizumab, Beovu, wet ARMD, anti – VEGF.

INTERNAL MEDICINE SECTION

CHAIRMEN:

Assoc. prof. Margarita Vlahova, MD, PhD

Radina Atanasova, MD

Boryana Zhelezarova, MD, PhD

SECRETARY:

Maria Tsvyatkova, OC

It is much more important to know what sort of a patient has a disease than what sort of a disease a patient has.

William Osler

BILIARY DRAINAGE OPTIONS IN ADVANCED KLATSKIN TUMOR

Chelebieva M.T.*, Katzarov K.S.**, Popadiyn I.E.**, Sapundzhiev K.K.**
****Medical University – Pleven, Bulgaria.***
*****Clinic of Gastroenterology and Hepatology, Military Medical Academy – Sofia, Bulgaria.***
Presenting author: Chelebieva M.T.
Correspondence: maria.chelebieva@abv.bg

AIMS
A patient admitted with a mechanical icterus underwent ERCP (Endoscopic Retrograde Cholangiopancreatography) with placement of a self-expanding metallic uncovered stent on the left and subsequent percutaneous transhepatic drainage on the right to obviate cholestasis, which turned out to be due to a Klatskin type IV tumour.
METHODS
An 88-year-old patient with mechanical icterus was admitted. His co-morbidities were arterial hypertension, post ischemic stroke condition in 2020 and bilaterally decreased hearing. An abdominal ultrasound showed evidence of dilated intrahepatic bile ducts, ductus hepaticus dexter, sinister and communis up to 10mm. ERCP was performed: cannulated, contrasted and found dilated intrahepatic bile ducts on the left with a stenosis of ductus hepaticus sinister. SEMS (self-expanding metallic stent) 10mm x 80mm (uncovered) was placed in left intrahepatic bile ducts per guide. Drainage provided, bile juice leaked. A control abdominal ultrasound was performed and right intrahepatic bile ducts were seen to be enlarged. A percutaneous transhepatic drainage was performed under ultrasound control: after contrasting were found dilated right intrahepatic bile ducts and a stenosis of ductus hepaticus dexter. Percutaneous 8FR drain was placed in the right intrahepatic bile ducts by guide. Drainage provided, bile juice leaked. Klatskin type IV was found.
RESULTS
The patient was discharged for palliative symptomatic treatment.
CONCLUSION
ERCP with palliative biliary stenting is indicated in patients with biliary obstruction from inoperable cancer. When stent placement is not feasible, percutaneous transhepatic drain placement is an alternative.

KEY WORDS: ERCP, Klatskin, icterus, cholangiocarcinoma, cholestasis

DIFFERENCES IN SPECIES DISTRIBUTION AND RESISTANCE TO ANTIMICROBIAL AGENTS AMONG BETA-HAEMOLYTIC STREPTOCOCCI

Dinkov V.V.*, Ramadanova E.R.**, Koleva D.T.**, Yordanova Y.A.**, Edreva V.E.***
**** Clinical Microbiology Study Group, Medical University – Pleven, Bulgaria.***
***** Medical college, Medical University – Pleven, Bulgaria.***
****** Department of Microbiology and Virology, Medical University – Pleven, Bulgaria.***
Presenting author: Dinkov V.V.
Correspondence: vdinkov182@gmail.com

AIMS
To analyse the strains of beta-haemolytic streptococci isolated from clinical specimens by species distribution and most common types of infections. To observe the dynamics and differences of resistance to antibiotics of the isolated strains.
MATERIALS AND METHODS
The research includes 211 strains beta-haemolytic streptococci from clinical materials of patients treated in UMHAT – Pleven in the period from 2018 to 2021. The cultivation of the materials was done on blood agar. The identification of the isolated microorganisms was performed by susceptibility to Bacitracin, CAMP-test, and Streptest or the VITEK-2 system. Susceptibility to antibiotics was determined by disk-diffusion method or by MICs.
RESULTS
Group A streptococci is the most isolated - 83 isolates (39,33%), followed by Group B streptococci - 60 (28,43%), nAnB – 41 (19,43%) and Groups C, G, F with less than 15 isolates each – 27 in total (12,76%). The most common types of infection caused by beta-haemolytic streptococci were wounds and soft tissues infections - 108 strains (51,18%), followed by respiratory tract infections – 78 (36,96%). Infections in other anatomical regions were less common. Resistant to penicillin G were 16 (7,6%) of the strains, to Erythromycin – 39 (18,48%), to Clindamycin – 31 (14.7%) and Levofloxacin – 7 (2,9%).
CONCLUSION
The infections caused by Group A streptococci were dominant for the 4-year period, followed by Group B infections. Wounds and soft tissue infections and respiratory tract infections were most common. There were significant differences in resistance to antimicrobials between different serological groups.

KEY WORDS: beta-haemolytic streptococci, species distribution, resistance.

INVASIVE PNEUMOCOCCAL INFECTIONS

Kaneva V. P.*, Angelova Y. N.*, Borisova M. B.**, Edreva V. E.***
****Clinical Microbiology Study Group, Medical University - Pleven, Bulgaria.***
***** Clinical Microbiology Study Group, Medical College, Medical University- Pleven, Bulgaria.***
******Department of Microbiology and Virology, Medical University - Pleven, Bulgaria.***
Presenting author: Kaneva V. P.
Correspondence: victoria.p.kaneva@gmail.com

AIM
To analyse the specifics of invasive infections caused by S.pneumoniae in terms of age distribution, location (type of material) and resistance of isolated strains to antimicrobial agents.
METHODS
The study included 55 strains of S.pneumoniae, isolated from 52 patients with invasive infections, treated at University Hospital Pleven for a period of 5 years.The cultivation of clinical samples was done on blood agar (5% sheep blood), chocolate agar and EMB agar. Identification was done by determining the susceptibility to optochin or by an automated system. Susceptibility to antimicrobials was determined by the disk-diffusion method or by minimal inhibitory concentrations.
RESULTS
Male patients dominated in the study - 29 (55,8%). The average age of the patients was 42,9 years with infections, predominantly in adolescents - 12 (23,07%) and in patients over 50 years - 28 (53,84%). The most common types of infections are respiratory tract infections - 26 (50%), followed by infections of the central nervous system - 12 (23,07%) and those of the middle ear - 8 (9,61%). The isolated strains showed 100% susceptibility to vancomicin, linezolid and carbapenems, and highest resistance to penicilin and amoxicillin/clavulanic acid.
CONCLUSION
Risk groups for the developing of invasive pneumococcal infections are adolescents and people over 50 years. The most common types of infections are those of the respiratory and the central nervous system. The strains have the highest susceptibility to glycopeptide antibiotics and carbapenems.

KEY WORDS: Streptococcus pneumoniae, invasive infections, resistance.

APS-A DIAGNOSIS TO HAVE ON MIND

Karaemin G. D.*, Georgieva N. G.*, Dobrev D. D.*, Todorova M. S.**, Tsvetkova V. Ts.**, Dinkov B. V.**
****Students of Medical University – Pleven, Bulgaria.***
*****Department of Endocrinology, UMHAT "Dr Georgi Stranski" – Pleven, Bulgaria.***
Presenting author: Karaemin G. D.
Correspondence: gulcanmed88@gmail.com

INTRODUCTION

Autoimmune polyglandular syndromes (APS) are clusters of two or more autoimmune endocrine diseases. In some cases, however, non-endocrine organs are also affected.

There are four major types of APS which differ by clinical presentation and type of inheritance.

APS II is characterized by Addison's disease, autoimmune thyroid disease (ATD) and/or Type I Diabetes Mellitus. It may also include other autoimmune disorders like primary hypogonadism, myasthenia gravis and coeliac disease. Association with vitiligo, alopecia and pernicious anaemia is rare.

APS type II is inherited in autosomal dominant manner with incomplete penetrance. Females are predominantly affected. The HLA-system takes an important place in the development of the syndrome. Factors involved/ taking place in the development of all of the autoimmune disorders and the syndromes include genetics, stress, infections etc.

AIMS

To present the case of a patient with APS and to remind that even though the condition is rare, we should keep it in mind.

METHODS

We present a case of a 53-year-old male, diagnosed with APS type II. He came to the endocrinology department with complaints of progressive fatigue, weight loss, hypoglycemic episodes and numbness in the extremities. The patient was primarily diagnosed with Diabetes mellitus type I, then Hashimoto thyroiditis and afterwards with primary adrenal insufficiency (Addison's disease). Hence the diagnosis of APS type II was made. On physical examination there were skin changes (diabetic rubeosis and hyperpigmentation on the forearms and gums), hypotension and goitre. Blood samples were obtained for routine (glucose, full blood count and electrolytes) and hormone testing (cortisol, ACTH, T3, T4, TSH, TAT, TPO). Thyroid ultrasound revealed typical autoimmune changes confirming the diagnosis Hashimoto thyroiditis. Cardiologist consultation was also made, because of the ECG

abnormalities.

RESULTS

Substitutional therapy with Prednisolone, Levothyroxine was conducted and his antidiabetic therapy was revised.

CONCLUSION

Diabetes mellitus is a widespread disorder, which in fact can be also part of APS and the possibility should not be omitted. Sometimes there is more than one simple cause for hypoglycemia.

KEY WORDS: APS, diabetes mellitus, addison, hashimoto thyroiditis.

INCIDENTAL PULMONARY EMBOLISM IN A METASTATIC CANCER PATIENT & THE LIMITATIONS OF A DISEASE BASED APPROACH

Abedi S.A.* Khan A.M.*
****Medical University – Pleven, Bulgaria***
Presenting Author: Khan A.M.
Correspondence: anasaftab@hotmail.co.uk

INTRODUCTION
Pulmonary embolism is a blood clot lodged in the pulmonary circulation, restricting blood flow to part of the lung. Among tumor types, gastric carcinoma is associated with the 5th highest rate of deep vein thrombosis (D.V.T)/pulmonary thromboembolism (P.T.E).
AIMS
Here, we report a case that emphasizing the importance of routine imaging studies in cancer patients to prevent/promptly manage elusive complications. The patient, an 85-year-old male, with a history of long-term smoking and severe alcohol dependence was referred from radiology with an incidental finding of pulmonary embolism during a full body C.T. to assess the gastric carcinoma metastasis. He presented with poor appetite; nausea & occasional shortness of breath.
METHODS
Upon physical examination, there was inguinal lymphadenopathy; a shifting dullness on percussion, and hepatomegaly. All bowel sounds were normal. There were clinical signs of D.V.T: peripheral edema and diminished posterior tibial pulse. A full blood count (F.B.C), liver function tests, blood glucose, and electrocardiogram were performed. Blood urea and serum creatinine levels were high. A conclusive diagnosis was made with a chest C.T. showing the pulmonary embolism.
RESULTS
The patient was prescribed analgesics and Enoxaprine daily for six months. An F.B.C. on days 3, 5, 8, and 14 were required, followed by monthly checkups. He was informed of red flags of P.T.E: chest pain, hemoptysis, and worsening edema and discharged with a referral to a consultant for further management of his cancer.
CONCLUSION
This case consolidates the advantages of treating the patient holistically rather than focusing on a confirmed diagnosis/disease.

KEY WORDS: pulmonary embolism, gastric carcinoma, deep vein thrombosis, image diagnostics, accidental findings.

EFFICIENT MANAGEMENT OF POLYMYOSITIS WITH IV IG

Kiran A.*, Thomas S.K.*, Sundar A.**
****Medical University – Pleven, Bulgaria.***
*****Department of Surgical Disease, Medical University – Pleven, Bulgaria.***
Presenting author: Kiran A.*
Correspondence: amritakiran1204@gmail.com

AIM
Polymyositis is a rare autoimmune disease progressing in the form of muscle breakdown that is induced by chronic inflammation in skeletal muscles. The diagnosis of polymyositis is considered to be a difficult one. This case study brings into light the effective resolution of idiopathic polymyositis in our patient treated with intravenous immunoglobulin. If left untreated, polymyositis can become a life-threatening condition with worsening of breathing and swallowing.
METHODS
Based on the symptoms, muscle biopsy results and elevated enzymes like LDH, CPK, CK-MB levels the patient was diagnosed with Idiopathic polymyositis. Patient was treated with a combination therapy of Methylprednisolone, galantamine, Azathioprine and iv IG.
RESULTS
After a 6month course of ivIG, the patient‘s general condition significantly improved with normalization of lab parameters. Other studies have also shown IVIG to be effective in most PM patients with lung or esophagus involvement. In some patients, IVIG also demonstrates the most effective steroid-sparing effect.
CONCLUSION
This case study indicates that IVIg treatment in our patient with Idiopathic inflammatory myositis led to excellent resolution of disease with a fast clinical response. Reports state, the higher medication cost is the main prohibiting factors for the use of IVIg as the first-line therapy. We urge the need for cumulative cost vs. comparative quality analysis of various therapeutic options for myositis for providing the best possible healthcare to polymyositis patients that can considerably improve their quality of life.

KEY WORDS: polymyositis, i.v. IG.

RIEDEL'S THYROIDITIS: PITFALLS IN DIAGNOSIS AND SUBSEQUENT COMPLICATIONS - A CASE REPORT

Pandev R.*, Ratheesh V.**, Khan M.**, Feradova H.*, Gecov P., Belitova M.*******
****University Clinic of Surgery, Section "Endocrine Surgery", University Hospital "St. Marina", Medical University - Pleven, Bulgaria.***
***** Medical University - Pleven, Bulgaria.***
******University Clinic of Radiology, University Hospital "Queen Johanna" – ISUL, Medical University - Sofia, Bulgaria.***
*******University Clinic of Anesthesiology and Intensive care, University Hospital "Queen Johanna" – ISUL, Medical University - Sofia, Bulgaria.***
Presenting author: Ratheesh V.
Correspondence: vysakhrox@gmail.com

AIMS
Riedel's thyroiditis is a rare disease of chronic inflammation with fibrotic infiltration of the thyroid gland and its surrounding vital structures. Due to its low incidence, there are often delays in diagnosis as it is commonly mistaken for other thyroid diseases. In this case report, we discuss the consequences of misdiagnosing the patient and delaying the appropriate treatment.
METHODS
We report the case of a 34-year-old female patient who presented with a firm, enlarged mass in the neck, compression symptoms, and hypothyroidism. Lab tests showed elevated A-TG (thyroglobulin antibodies) and A-TPO (thyroid peroxidase antibodies) levels. Based on the disease presentation and supporting lab findings, the patient was misdiagnosed with Hashimoto's thyroiditis and treated accordingly.
RESULTS
However, the patient's symptoms grew progressively worse. She was discovered to have severe tracheal compression and bilateral RLN (recurrent laryngeal nerve) palsy. Tracheotomy became a necessary surgical intervention after the development of respiratory failure, but this procedure was complicated by the development of intraoperative pneumothorax. After an open biopsy, histology revealed Riedel's thyroiditis. A new treatment was introduced with which the patient's condition improved. However, she continued to suffer from the open tracheocutaneous fistula left by the tracheostomy, which adversely affected her everyday life.
CONCLUSION
A follow-up operation was performed to close the fistula. In this case report, we highlight the fact that making an accurate and timely diagnosis will hasten a patient's recovery, as well as help decrease the risk of developing late disease complications.
KEY WORDS: rare disease, misdiagnosis, respiratory failure, pneumothorax, recovery

A CASE REPORT OF OVERLAP SYNDROME WITH SYSTEMIC LUPUS ERYTHEMATOSUS, SJOGREN'S SYNDROME, RHEUMATOID ARTHRITIS AND AUTOIMMUNE HEPATITIS

Vijay Kurup C.*, Sunil N. J.*, Zlelezarova B.**
****Medical University - Pleven, Bulgaria.***
*****Department of Rheumatology, UMHAT "Dr Georgi Stranski" - Pleven, Bulgaria.***
Presenting author: Vijay Kurup C.
Correspondence: chandnivk08@gmail.com

AIMS

To demonstrate overlap syndrome in rheumatology, to define the hallmarks of this association, and to evaluate clinical and immunological features for follow-up and prompt management to enhance the quality of life and determine which diseases demand active management.

METHODS

Information is gathered from the 67 year old patient's medical history, physical examination, laboratory test results, especially antibody levels, and haematological data. Ultrasounds of the abdomen, CT, X-rays and liver biopsies are used as imaging tests.

RESULTS

The patient was hospitalized because of the patient's persistent complaints, and the overlap syndrome diagnosis was corroborated by the laboratory findings. With ANA 1:1000, there is proof of decreased immune activity. Antibody levels are increased, and the following stood out:

ANA - 400 AU/ml
Anti ds DNA - 64.22 IU/ml
SS-A/Ro/ - 400 AU/ml
SS-B/La/ - 149.8 AU/ml
Scl-70 - 12.09 U/ml
IgM - 13.63 IU/ml

These variables along with physical examination and imaging studies supported the presence of active SLE, sjogren's syndrome and seropositive rheumatoid arthritis with stable liver function.

CONCLUSION

Rheumatological diseases can have associations with each other and it's important to diagnose them as symptoms are nonspecific in the beginning. Given the paucity of expertise and knowledge of overlap syndrome, its potential complications, and its prognosis, it's a challenging diagnosis to make. The aim is to reach low disease

activity and to carry out day-to-day activities with ease. Such patients require close monitoring and a 3-6 monthly follow up to improve the quality of life.

KEY WORDS: overlap syndrome, SLE, ANA, rheumatology, Sjogren's syndrome

NEUROLOGY, PSYCHIATRY & NEUROSURGERY SECTION

CHAIRMEN:

Aleksandar Todorov, MD, PhD

SECRETARY:

Ralitsa Sotirova, OC

To array a man's will against his sickness is the supreme art of medicine.

Henry Ward Beecher

CORRELATION BETWEEN THE DIRECT MICROSCOPY, LATEX AGGLUTINATION AND CULTURAL EXAMINATION IN MICROBIOLOGICAL DIAGNOSIS OF BACTERIAL MENINGITIS

Naydenova Ts. N.*, Bojinova V. K.*, Marinova-Balgaranova T. V.**, Edreva V. E.**
****Clinical Microbiology Study Group, Medical University - Pleven, Bulgaria***
*****Department of Microbiology and Virology, Medical University - Pleven, Bulgaria***
Presenting author: Naydenova Ts. N.
Correspondence: cveti.naydenova@gmail.com

AIM
To analyze all cases of bacteriologically proven meningoencephalitis in patients treated in UMHAT – Pleven for a period 2016-2022.
METHODS
The study includes 34 samples cerebrospinal fluid (CSF) from 29 patients. Direct microscopy - by Loeffler and Gram staining. Latex agglutination – Oxoid Ltd, UK. Cultural examination, final identification and susceptibility to antimicrobials – by conventional methods or automatized systems.
RESULT
Study group - 15 men and 14 women. The average age is 46,48 years (from 4 months to 87 years). The isolated pathogens are: *S.pneumoniae* – 15, *N.meningitidis* – 3, *Acinetobacter spp.* – 3, *E.coli* – 2, *P.agglomerans* – 1, *K.pneumoniae* – 1, *H. influenzae* – 1, *P.aeruginosa* – 1, *L.monocytogenes* – 1, *C.neoformans* – 1.
From all the 35 samples direct microscopy was made and the finding was positive in 29 (82,85%) of the cases. In the other 5 samples the direct bacterioscopy was not persuasive, but the pathogen was isolated by cultivation. Latex agglutination was performed in 30 of the cases. In 12 of them, kits do not include reagents against the causative microorganisms. Of the remaining 18 there is coincidence between latex agglutination and final diagnosis in 15 cases (83,33%). Bacterial growth was found in 29 (82,85%). In 6 samples there is no bacterial growth because of the started empirical therapy. A complete correlation between the results of the direct microscopy, latex agglutination, cultural examination was established in 9 of the samples (25,71%).
CONCLUSION
Sensitivity and specificity of these 3 approaches is almost the same and each one has its pros and cons. The usage of these 3 methods together increases the probability of establishing right etiological diagnosis.

KEY WORDS: microscopy, latex agglutination, cultivation, meningoencephalitis.

MENINGOTHELIAL SPHENOID WING GRADE I MENINGIOMA: CASE REPORT

Penchev P. N.*, Petrov P-P.**, Kalnev M. B.***
****Faculty of Medicine, Medical University of Plovdiv, Bulgaria***
*****Department of Anatomy, Histology and Embriology, Medical University of Plovdiv, Bulgaria.***
******Department of Neurosurgery, Medical University of Plovdiv, Bulgaria; Neurosurgery clinic, University Hospital "St. George", Plovdiv, Bulgaria.***
Presenting author: Penchev P. N.
Correspondence: sonaonetrick@abv.bg

INTRODUCTION

Sphenoid meningiomas are slow-growing, extra-axial tumors that arise from the arachnoid cells. These tumors are a subgroup of intracranial meningiomas, which are meant to be the most common primary intracranial tumors. Sphenoid wing meningiomas represent approximately 12% of all intracranial meningiomas.

AIMS

This case report aims to present a patient with sphenoid wing meningioma and to evaluate the postoperative clinical outcome.

METHODS

We present a case report of a 70-years-old female patient who has entered the Neurosurgery clinic of University Hospital "Saint George" with clinical manifestation of monocular vision, unilateral ptosis of the left eye, and blurry vision in the right eye. MRI scan discovered an extra-axial mass located supratentorial, in the left temporopolar region affecting the wing of the left sphenoidal bone, invading the cavernous sinus, suppressing the left and right optic nerves, and involving the left orbit.

RESULTS

An operative treatment was performed through a pterional craniotomy and resection of the tumor mass by microsurgical technique. The subdural, epidural, and intraorbital mass were resected. Total removal of the tumor was not achievable and subtotal resection was performed. Postoperatively the patient was without added neurological deficit. Surgery-related complications were not observed and the control CT scan has shown no ischaemic or hemorrhagic events.

CONCLUSION

Sphenoid wing meningiomas are most commonly presented with visual disturbances. Proper imaging and timely diagnosis can prevent these lesions from growing into giant tumors.

KEY WORDS: meningioma, sphenoid wing, optic nerve, pterional craniotomy, cavernous sinus

SUCCESSFUL TREATMENT OF PROGRESSING SUBTOTALLY RESECTED POSTERIOR CRANIAL FOSSA HAEMANGIOBLASTOMA WITH GAMMA KNIFE RADIOSURGERY

Stanimirov I.*, Petrov I.**, Lazarov R.*, Bildirev N.*
****Radiation Oncology and Radiosurgery Department, „Heart and Brain" Hospital – Pleven, Bulgaria***
*****Medical Physics Department, „Heart and Brain" Hospital – Pleven, Bulgaria***
Presenting author: Stanimirov I.
Correspondence: dr.stan92@gmail.com

INTRODUCTION

Hemangioblastomas are highly-vascularised CNS tumours often appearing around the brainstem, more common among men. Surgical resection is difficult due to the high vascularisation and critical structures adjacency. Haemangioblastomas respond well to stereotactic radiosurgery (SRS) with nearly all tumours stopping growth, frequently after a delayed period of pseudoprogression.

AIMS

We present successful Gamma Knife (GK) treatment of haemangioblastoma displacing the brainstem in a patient who had previously undergone subtotal surgical resection.

METHODS

61 y.o. male with recent history of high blood pressure, clumsiness and head/neck pain suffered sudden loss of consciousness while driving, causing a minor car accident. CT - huge oedema around tumor, displacing the brainstem. MRI - highly-vascularised tumor involving the posterior cranial fossa, 2.3 x 2.1 cm. Right retrosygmoid craniotomy and subtotal tumor resection with neuromonitoring performed. MRI at 9 months - tumor volume increased 30%-40% from 3 months post-surgery. Fractionated 3 x 6.5 Gy GK SRS performed. 6 months post-SRS - transient headache, confusion and tiredness. MRI - increased tumor volume, perilesional oedema - pseudoprogression. Outpatient treatment with dexamethasone, reducing the symptoms, weaned off for 4 months. MRI 1 year post-GK - tumor regression back to pre-GK dimensions.

RESULTS

More than 1.5 years after GK treatment the patient is neurologically intact without any residual effects, driving, back to work.

CONCLUSION

Gamma Knife radiosurgery is a reliable and safe alternative for hard and risky surgical approach haemangioblastomas engaging the brainstem. Caution is needed with late-appearing pseudoprogression often presenting with dangerous symptoms that should be managed adequately.

KEY WORDS: gamma knife, radiosurgery, SRS, haemangioblastoma, radiotherapy, CNS tumors.

ONSET OF MS OR CEREBROVASCULAR ACCIDENT

Noor S.**, Danovska M.*, Yanakieva M.*, Todorova Y.*
****Department of Neurology UMHAT "Dr. Georgi Stranski" Pleven, Bulgaria.***
*****Medical University Pleven Bulgaria.***
Presenting author: Noor S.
Correspondence: shahnoor333@hotmail.com

INTRODUCTION

Multiple Sclerosis (MS) is the most common chronic and physically disabling autoimmune disease of the central nervous system in young adults. Though it is rare, the onset of MS and ischemic stroke (IS) could manifest with similar clinical and radiographic features. The diagnosis and treatment of MS can be challenging, especially when the initial demyelinating event resembles an acute IS.

AIM

We describe the case of a 35 years old female admitted to the Neurology clinic at UMHAT „Dr. Georgi Stranski". The patient presented with sudden onset of numbness and weakness in the left limbs. In past, the patient was diagnosed with secondary hypoparathyroidism due to thyroid cancer surgery. The patient had no family history of MS and IS.

METHODS

The neurological examination revealed a moderate left-sided spastic hemiparesis, left-sided hypoesthesia, asymmetrical deep tendon reflexes (D>S), and a positive left Babinski sign. The brain CT scan performed at the ER confirmed several hypodense lesions 4-6mm in size and another hypodense area localized in the right parietal lobe 20/16 mm, suspected to be ischemic lesions.

RESULTS

The young age of the patient and the absence of any vascular risk factors prompted the implementation of additional diagnostic tests. Magnetic resonance imaging (MRI) showed multiple lesions visualized on T2-weighted and FLAIR images bilaterally localized in the corpus callosum, paraventricular and subcortical white matter consistent with demyelinating disease. CSF analysis revealed the presence of oligoclonal bands. Treatment with high-dosage intravenous corticosteroids achieved rapid resolution of symptoms. Based on the patient's history, clinical, paraclinical and MRI findings and response to the corticosteroid therapy, MS was diagnosed.

CONCLUSION

This case sheds light on a rare form of MS with a stroke-like onset. Diagnosis of such unusual variants of MS requires a careful assessment of the data through extensive neurological examination, CSF analysis and MRI findings, further supported by the impressive effects of pulse corticosteroid therapy.

KEY WORDS: MS, stroke-like onset, neurodegeneration, clinicoradiographic features.

A LITERATURE REVIEW ABOUT THE EFFICACY AND EFFICIENCY OF DIFFERENT MEDICATIONS IN TREATMENT OF ADHD AND WHICH ARE THE MOST SUITABLE FOR CHILDREN

***Leen O.*[*]*, Abdul R. A.*[**]**
[*]***Fifth-year pharmacy student, Faculty of Pharmacy, Istinye University, Istanbul, Turkey.***
[**]***Fourth-year medical student, Medical University – Pleven, Bulgaria.***
Presenting author: Leen Odah
Correspondence: leenodah.27@gmail.com

INTRODUCTION
Attention deficit hyperactive disorder (ADHD) is a common neurodevelopmental disorder which is usually diagnosed in childhood and usually extends into adulthood leading to the affected child to have issues with paying attention, impulse control, and hyperactive behavior treated with amphetamines and other stimulants alongside psychotherapeutic drugs that cannot be used safely on children.
AIM
By using literature data from clinical studies and comparing the published laboratorial results, we aim to illustrate the difference in the drugs used for ADHD across age groups and how they are being used. We will present multiple causes for administering drugs for treatment of ADHD in different age groups while focusing on pediatric patients and the dosages needed for them. We will also compare the efficacy and efficiency of different drugs and which ones are used as first line and second line treatment of ADHD. We will discuss examples of drugs that can be used to treat multiple psychotic illnesses at the same time and what their effects are on ADHD patients.
CONCLUSION
This review demonstrates the reason for the use of drugs for the treatment of ADHD, their classes, indications, and suitability in different age groups, especially in pediatric patients.

KEY WORDS*:* ADHD, children, drugs for ADHD.

CIPA - AN OVERVIEW, WHY PAIN IS IMPORTANT

Routray S. K.*, Vora B. O.*,Vijayan A.*
**** Students at Medical University - Pleven, Bulgaria***
Presenting author: Routray S. K.
Correspondence: subrat.routray93@gmail.com

INTRODUCTION

Congenital insensitivity to pain and anhidrosis (CIPA) is a rare autosomal recessive genetic disorder caused by mutations. CIPA is also known as hereditary sensory and autonomic neuropathy type 4 (HSAN4). It normally starts in childhood and is characterized by the absence of pain and sweating. CIPA affects the nervous system with congenital loss of sensation to pain, temperature and anhidrosis. Additionally patients may have mental retardation and developmental delays.

AIMS

The aim of this study is to assess the relation between absence of pain sensation and health risk. We show why pain is important, and the ways to improve quality of life of CIPA patients with emerging technologies.

METHODS

In this work, we used resources from 25 different clinical cases, which include journal articles, conference articles and news articles from different print media sources. These selected articles have main focus on CIPA/HSAN4 and emerging technologies in healthcare used for CIPA.

RESULTS

Most of the reviewed articles showed positive associations between loss of pain sensation and risk of injuries to the body. Different clinical presentations of CIPA patients to the clinic are seen in both higher and lower income countries. Self-mutilation, fractures, osteomyelitis, repeated injury and infection are commonly observed in CIPA. In most critical conditions, seizures induced by hyperthermia and sepsis accounts for almost 50% of deaths due to CIPA.

CONCLUSION

Review of current literature and articles show most of the injuries and clinical conditions have higher incidence in the early period of life. These cases justify why pain is important. The condition is very challenging for parents with frequent visits to hospital. Using emerging technologies a better quality of life can be given to them which can also be used for remote monitoring and remote care.

KEY WORDS: insensitivity to pain, anhidrosis, neuropathy, emerging technologies for CIPA.

OBSTETRICS AND GYNECOLOGY & PEDIATRICS SECTION

CHAIRMEN:

Assoc. prof. Angel Yordanov, MD, PhD

Venetzia Botsova, MD, PhD

SECRETARY:

Antonia Andreeva, OC

All of us are products of our childhood.

Michael Jackson

PREVALENCE OF PREDIABETES AMONG OBESE CHILDREN IN PLEVEN REGION

Nikolova D. N.*, Adil N. N.*, Elkina S. M.**, Halvadzhiyan I. B.**, Bozhanova V.Ts.**, Petrova Ch. K.**
**** Sixth Year Medical Students at the Medical University - Pleven, Bulgaria.***
***** Department of Pediatrics, Medical University - Pleven, UMHAT "Dr Georgi Stranski" - Pleven, Bulgaria***
Presenting author: Adil N.N.
Correspondence: neshe_1999@abv.bg

INTRODUCTION
Obesity is a global issue, even in childhood, and prediabetes is becoming more frequent among obese children. Meanwhile prediabetes is first step for developing type 2 diabetes in adulthood.
AIM
The aim of the present study is to analyze the prevalence of prediabetes among children with obesity in Pleven region.
METHODS
A prospective study for period of 5 years (January 2017 – December 2021) among 95 patients (46 boys) aged between 10 and 18 years with obesity hospitalized in the Endocrine Pediatrics Unite of The University Hospital „Dr. Georgi Stranski" – Pleven was conducted. Children were screened for prediabetes according to the American Diabetes Association's (ADA) criteria: fasting glucose concentration (FBS) of 5,6 – 6,9 mmol/L or glycosylated haemoglobin (HbA1c) between 5.7% - 6.4%, or a two-hour post-glucose tolerance concentration (OGTT) of 7,8 – 11,0 mmol/L.
RESULTS
Prevalence of prediabetes in 32 (33.7%) of the evaluated children was found. Although obese teenage boys with prediabetes were slightly more (n=17), no significant differences between sex and age were found. Prediabetes was found in correlation with higher BMI and waist circumference. Patients with prediabetes also have significantly higher levels of basal insulin and ALAT and lower levels of HDL. In 59,4% of children with prediabetes a family history of diabetes was reported.
CONCLUSION
Screening of children for prediabetes, especially those with obesity and familial history for diabetes, may help in early diagnosis and delaying the progression of diabetes.

KEY WORDS: prediabetes, obese children.

ENDOVASCULAR EMBOLIZATION OF PEDIATRIC ARTERIOVENOUS MALFORMATIONS (AVMs)

Ilieva E. S.*
Sector of Interventional Radiology, Department of Neurosurgery, UMHAT "Sv. Ivan Rilski" – Sofia, Bulgaria
Presenting author: Ilieva E. S.
Correspondence: ellie_sv@abv.bg

INTRODUCTION

Brain arteriovenous malformations (AVMs) are abnormal connections between arteries and veins, bypassing the capillary system. They can be presented either as direct fistula, or as pathological formation of tangled vessels, a web, called nidus. AVMs are one of the most common cause of brain hemorrhage in childhood. Pediatric AVMs are rarely clinically presented, but they need to be diagnosed on time and treated as a matter of urgency due to the severity of their first symptoms and risks of bleeding, epilepsy and neurological deficits.

AIMS

The aim of this abstract is to introduce you to the therapeutic methods used for treatment of pediatric AVMs, while focusing on the endovascular embolization as method of first choice.

METHODS

There are 3 main therapeutic methods, which can be used independently or in combination, regarding the case. AVM treatments include: endovascular embolization, neurosurgery and radiosurgery/radiotherapy.

RESULTS

Patients are able to resume their normal lifestyle in full volume immediately upon each discharge, although complete recovery can take up to six months for complex cases. The risks of short- and longterm complications are low.

CONCLUSION

Endovascular embolization of AVM in children is a relatively safe, effective and reliable method, which in recent years has become the first method of choice for this type of pathology. Endovascular embolization can be used both for definitive treatment and as part of combination therapy.

KEY WORDS: arteriovenous malformations, pediatric, brain hemorrhage, endovascular embolization.

A CASE OF EXTREME HYPONATREMIA DUE TO WATER INTOXICATION

*Ather Z. *, Jacob F.***
**Medical student at Medical University Pleven, Bulgaria.*
***Pediatrics department, Kingston Hospital NHS Foundation trust "Consultant Dr Rebecca Hodgkinson".*
Presenting author : Jacob F.
Correspondence: jacobpheebs@gmail.com

INTRODUCTION

Hyponatremia is one of the most common electrolyte pathologies encountered in clinical practice, transpiring in about 15-30% of the hospitalized patients and has been associated with substantial morbidities and mortalities. Unfortunately, this disorder remains under-studied due to its wide range of aetiologies.

AIM

To highlight status epilepticus caused by severe dilution hyponatremia in infants presenting with seizure.

MATERIALS AND METHODS

We report a case of a 2-year-old who was brought into the Emergency Department after having a generalized tonic clonic seizure at home and throughout her journey to the hospital resulting in the patient presenting with cyanosis. It was later discovered to have been dilution hyponatremia presenting with seizure caused by water intoxication.

RESULTS

Airways maintained so that assisted breathing can be given; patient was too stiff to insert OP (oropharyngeal airway) therefore the anaesthetics presented and managed airway with jaw thrust/chin lift and BVM (Bag valve mask). The patient was then given 2 X buccal Midazolam 5 mins apart followed by Keppra causing seizure to cease and colour to improve.

CONCLUSION

Detailed history taking and early detection of hyponatremia is crucial to prevent fatal complications of water intoxication with neurological symptoms when brought into ED, immediate management is recommended.

KEY WORDS: seizure, hyponatremia, epilepticus.

A CASE OF RAPIDLY PROGRESSIVE METASTATIC CHORIOCARCINOMA AND DIAGNOSTIC CHALLENGES

Kiran A.*, Thomas S.K.*, Sundar A.*, Rajagopal A.*, Sivakumar J.*, Yaneva K.**
****Medical University – Pleven, Bulgaria.***
*****Department of Gynaecology, "St.Marina" Hospital Pleven, Bulgaria.***
Presenting Author : Kiran A.
Correspondence: amritakiran1204@gmail.com

AIMS
Choriocarcinoma is a malignant gestational trophoblastic disease characterized by its metastatic potentiality. Owing to its rapid progression, an earlier diagnosis & initiation of chemotherapy improves prognosis considerably.
METHODS
A 27-year-old woman presented with genital bleeding around 7 months postpartum. Hysteroscopy to ascertain the nature of a heterogeneous growth found on ultrasonography was met with severe bleeding upon curettage. Histopathology & Beta HCG showed evidence of choriocarcinoma & chemotherapy was initiated. Complaints of severe chest pain and cavitary lesions on pulmonary CT led to suspicion of septic emboli from the hysteroscopy conducted 2 days ago. Later, robotic total hysterectomy was performed & the patient was discharged in good condition. Patient appeared to be well on follow-up examination also. But 2 days later she became unstable, postoperative occult haemorrhage was suspected, however emergency CT showed extensive pulmonary & hepatic metastasis. Laparoscopy revealed massive hemoperitoneum from bleeding liver metastases which was managed. But later she had to undergo an emergency laparotomy due to another episode of massive bleeding.
RESULTS
This vicious cycle of surgery and postoperative haemorrhage persisted for a week following which the patient succumbed to her condition, one month after her diagnosis. The rapid progression of the fatally malignant choriocarcinoma is clearly elucidated in this case.
CONCLUSION
Choriocarcinoma should be kept in the differential diagnosis in all women of reproductive age presenting with hemorrhagic manifestations in any organ system & unexplained systemic symptoms. Thorough knowledge of the diagnostic challenges can thus go a long way in decreasing the adverse outcomes related to this aggressive yet curable malignancy.

KEY WORDS: choriocarcinoma, gestational trophoblastic disease.

A CLINICAL CASE OF TRANSLOCATION DOWN SYNDROME WITH COMPLETE AVSD

Kovacheva K S..*, Kamburova Z. B.*, Nikolova S.E.*, Ivanova M.H.* Maneva H.K.**
****Department of Medical genetics – Medical University – Pleven, Bulgaria.***
*****Medical student, Medical University – Pleven, Bulgaria.***
Presenting author: Maneva H. K.
Correspondence: chriisy26@gmail.com

INTRODUCTION

Down syndrome (DS) is the most common trisomy (1 in 800 in live born babies), which affects 21st chromosome. Around 3-4% of all cases are due to the involvement of 21st chromosome in Robertsonian translocation (two acrocentric chromosomes - 13,14,15,21,22, attached in the centromere region). Each one in four cases with translocation DS is inherited from a parent – carrier of a balanced translocation (14:21), which determines 33% theoretical recurrence risk for each of the upcoming pregnancies in the family.

CASE PRESENTATION

We present a clinical case of a female baby with translocation DS with AVSD. The patient was hospitalized at the age of 48 days with the symptoms of a heart failure. Echocardiography examination identified a complete AVSD. Due to presence of physical features characteristic for DS the patient was referred to a genetic counselor. Physical examination revealed brachycephalic scull, up-slanting palpebral fissures, epicanthic folds, flattened nose bridge, low-set ears, macroglossia, short neck, brachydactily, sandal-gap. Cytogenetic analysis established the karyotype of 46,XX,t(14;21)(q10;q10),+21 in all analyzed metaphases. The parents rejected to undergo testing.

CONCLUSION

In case of translocation DS, cytogenetic analysis of both parents is required in order to estimate the recurrence risk for subsequent pregnancies and to recommend the most effective
prevention.

KEY WORDS: Down syndrome, translocation variant, cytogenetic analysis.

CAN IDENTIFYING THE RISK FACTORS FOR PCOS IN CHILDHOOD, AID IN PREVENTION OF THE DISEASE AND ITS COMPLICATIONS IN THE FUTURE?

Sunny S.E.*, Saji S.D.*, Mavunkal Joseph J.A.* , Sabu A.K.*, Popovski N.K.**
****Students at Medical University Pleven, Bulgaria.***
*****Department of Obstetrics and Gynaecology UMHAT "Dr Georgi Stranski" – Pleven, Bulgaria.***
Presenting author: Saji S.D.
Correspondence: stephys423@gmail.com

AIMS
Polycystic Ovary Syndrome (PCOS) is a complex disorder that appears due to the combined effects of both polygenic (shows 70% variance) and nonheritable factors and is associated with comorbidities varying from T2DM to infertility. The objective of this study is to anchor the importance of early awareness to deduce susceptible individuals and to make small efforts to attain greater benefits in the long run.
METHODS
Several PCOS literature were analysed, and a small-scale study was conducted by us, on women in the general population using google forms to verify whether they would have made any changes if they were conscious of their risks in their formative years.
RESULTS
From the study, we inferred that certain independent prepubertal factors could precede the development of PCOS, such as premature adrenarche, metabolic syndrome, and pseudo-acromegaly. Furthermore, preventable behaviours, such as dietary patterns high in glycemic index and animal fat, and a sedentary lifestyle early in life all contribute to obesity, insulin resistance, and hyperandrogenism, which are antecedents to PCOS.
CONCLUSION
Based on the evidence collected, although the disorder partially emanates from genetics, external factors play an avertible role in its development. Therefore, it is imperative that children and parents become aware of the disease, and they adopt healthy habits from a very young age to significantly reduce the likelihood of developing the disease and its complications.

KEY WORDS: PCOS, polygenic ,nonheritable factors, prepubertal factors, prevention.

UMBILICAL CORD PROLAPSE THROUGH URETHRA DUE TO UTERINE RUPTURE

Stoyanova N. D.*, Popovski N. K.*
**** Department of Obstetrics and Gynaecology, UMHAT "Dr Georgi Stranski" - Pleven, Bulgaria.***
Presenting author: Stoyanova N. D.
Correspondence: niikoletastoyanova@gmail.com

AIM
Our aim is to emphasize the role of uterine rupture as a rare and potentially fatal complication of pregnancy and the fact that although some patients are asymptomatic due to silent rupture, selected patients suffer from different accompanying complications such as prolapse of umbilical cord through the external orifice of urethra.
METHODS
We have made a case report based on a patient who developed combined uterine and bladder rupture resulting in umbilical cord prolapse through the urethra. We have used all
the patient's medical documentation, including articles and books on the subject matter.
RESULTS
A 31-year-old woman with history of preeclampsia and two previous Caesarean sections (CSs) was admitted to the Department of Obstetrics and Gynaecology because of pain and spontaneous leakage of amniotic fluid. Fetal demise was diagnosed by abdominal ultrasound. During the preparation for CS, prolapse of the umbilical cord through the maternal urethra was detected. An emergency laparotomy was performed and a cicatricial rupture of the uterus and bladder lesion were established. Due to impossibility to repair the uterine wall, a supravaginal hysterectomy was performed.
CONCLUSION
The fact that uterine rupture is a life-threatening obstetric emergency and that it is associated with high maternal and perinatal mortality indicates the necessity to consider the risk of rupture and to follow up on the patient to prevent complications.

KEY WORDS: prolapse, umbilical cord, rupture, preeclampsia.

SURGERY, UROLOGY & ORTHOPEDICS SECTION

CHAIRMEN:

Assoc. prof. Vladislav Dunev, MD, PhD

Polina Marinova, MD, PhD

Anislav Gabarski, MD, PhD

SECRETARY:

Mariana Kostova, OC

The art of medicine was to be properly learned only from its practice and its exercise.

Thomas Sydenham

CRITICAL ILLNESS POLYNEUROPATHY OF BOLTON – A CASE OF COMPLETE REMISSION

Abdullahi M.*, D'Silva M.*, Mehta A.*, Vladova P.**, Iliev S.**, Dimitrov G.**
****Medical University - Pleven, Bulgaria.***
*****Department of General Surgery, UMHAT "Dr Georgi Stranski" - Pleven, Bulgaria.***
Presenting author: Abdullahi M.
Correspondence: m.abdullahi@hotmail.co.uk

INTRODUCTION

CIP is an acute or subacute complication of severe illnesses involving sensorimotor axons and skeletal muscles. The clinical presentation typically involves weakness of the limbs and respiratory muscles. Patients typically have poor prognosis once on a ventilator due to inability or difficulty in weaning off mechanical ventilation and restoring spontaneous breathing.

AIM

To highlight the presentation of Critical Illness Polyneuropathy (CIP), seen in a once-severely ill patient.

METHODS

We present a case report of a 46-year-old female patient, who presented with acute peritonitis and subsequent sepsis due to perforated ulcer, pneumonia and status epilepticus. This led to the patient developing Critical Illness Polyneuropathy of Bolton- often observed in intensive care units.

RESULTS

The patient presented to the Emergency department at UMHAT 'Dr Georgi Stranski' – Pleven, with severe abdominal pain, vomiting, high temperature and status epilepticus. She was admitted to the hospital, following which she spent over a month intubated in the intensive care unit.

CONCLUSION

According to several studies, patients who suffer from Critical Illness Polyneuropathy of Bolton do not undergo complete remission. However, with appropriate management (which included two laparotomies), our patient's condition was controlled, she was successfully discharged two months after admission with complete recovery.

KEY WORDS: Critical Illness Polyneuropathy of Bolton, peritonitis, sepsis, mechanical ventilation.

PERFORMING A NON-INTUBATED VIDEO-ASSISTED THORACIC SURGERY A CASE REPORT

Dobrev D. D. **, Mihaylov I. I.**, Naumovski M. D. **, Malkodanski I. *
**** Department of Anesthesiology and Critical Care, UMHAT "Saint Marina", Pleven, Bulgaria.***
***** Medical University – Pleven, Bulgaria.***
Presenting author: Dobrev D. D.
Correspondence: denislavdobrev9999@gmail.com

AIM
The non-intubated video-assisted thoracoscopic surgery (NIVATS) technique is an advanced technique used mainly in thoracic and neck surgery that is performed by applying local anesthetic and performing loco-regional anesthesia.
METHODS
We present the case of a 55-year old female, diagnosed with bladder cancer 4 years ago. A PET-scan discovered multiple lung metastases and pleural effusions. She was admitted for video-assisted thoracoscopic surgery due to pleural effusion of 4 litters in the right half the thorax. As there were serious signs of carcinoma intoxication and heart failure the ASA score was estimated as IV. Thus, standard intubation anesthesia was dangerous. The non-intubation technique is an advanced technique used in cases of thoracic surgery. From a total of 21 results of the key words "non-intubation" and "surgery" in PubMed, only 11 were connected to thoracic and neck surgery. It is used primarily in cases of lobectomy and pneumonectomy.
RESULTS
A paravertebral block on level Th5 was performed in conjunction with mild intravenous sedation. Oxygen was delivered through a face mask. The patient remained conscious during the procedure but a full analgesic effect was achieved. There were no signs of tachycardia, sweating or other symptoms connected to pain.
CONCLUSION
From the data gathered, we conclude that the NIVATS is more efficient, with less complications, recovery time and financially favorable. However strict intraoperative monitoring is required.

KEY WORDS: non-intubated, VATS, paravertebral block.

COMPLICATED WOUND HEALING IN PATIENT WITH PROGRESSIVE FORM OF GOUT: A CASE REPORT

Georgieva N.G.*, Marinova P. G.*
****Department Surgical Diseases – UMHAT "Dr. Georgi Stranski" – Pleven, Bulgaria.***
Presenting author: Georgieva N.G.
Corresponding author: georgievaneli99@gmail.com

INTRODUCTION
Gout is a metabolic inflammatory disease from the group of crystal arthropaties, characterized by elevated blood levels of uric acid , arthritis and uric acid deposition in joints, skin, kidneys and soft tissues, surrounding the joints.
METHODS
We perform a case – report of patient with complicated ankle wound due to spontaneous rupture of a gout tophus and we perform a literature review in data base Pub Med. We used local ozonoides in treatment of wound defect.
RESULTS
A 76-year-old man experienced severe foot pain for 3-4 days, followed by blistering and rupture. Based on his 30- year history of gout, a diagnosis of a ruptured gout tophus was made. An x-ray of the affected areas followed. A sample (specimen) for microbiology testing was taken at the beginning and at the end of the treatment.
CONCLUSION
In spite of the fact that most people with this condition have good control over it, complications are still an option. Identifying and reporting these types of complications and their treatment is important for students' and young doctors' experience and field of knowledge.

KEY WORDS: gout, tophus, wound healing, local ozone therapy.

ROLE OF LYMPH NODE FLUORESCENCE MAPPING FOR COMPLETE MESOCOLIC EXCISION AT COLORECTAL CARCINOMA

Hristov H. N.*, Stanimirov S. B.*, Krasimirova D.*, Neikov V.**, Deliyski T.**, Ivanov Ts.**
****Students research group of surgery – Heart and Brain Hospital - Pleven, Bulgaria.***
***** Department of General Surgery, Heart and Brain Hospital - Pleven, Bulgaria.***
Presenting author: Hristov H.N.
Correspondence: hristianhristov5@gmail.com

AIMS
Complete mesocolic excision (CME) with high vascular ligation is a novel technique in the treatment of colon cancer, its introduction improved the oncological results for the patients. On the other hand, this technique is more complex than the standard and a higher intraoperative complication rate is reported by some. Intraoperative navigation by fluorescence of the lymphatic drainage by injection of indocyanine green around the tumour is studied for the possibilities of navigating the dissection during CME. The aim of this study is to present our experience with fluorescence lymph node mapping for real-time intraoperative navigation of CME for colorectal cancer.
METHODS
A prospective study was initiated in the period of May 2021 – July 2022, Patients with proven colon cancer, scheduled for minimally invasive surgery with CME were included. In all patients, endoscopic submucosal injection of ICG around the tumour the day before surgery was done. Intraoperative navigation was performed by fluorescence. The intraoperative complication rate, need for changing the initially planned fields of dissection and the number of dissected lymph nodes were studied.
RESULTS
For the planned period 15 patients were investigated. In all cases, except one the lymph nodes were visible by fluorescent light. The mid rate of dissected lymph was 19.
CONCLUSION
The ICG lymph node mapping is a feasible and safe technique for intraoperative navigation during CME. Further research is needed in this field.

KEY WORDS: fluorescence, lymph nodes, ICG, CME, colorectal carcinoma.

INDEX PROCEDURE - FIRST CORE-NEEDLE BIOPSY IN A BREAST CANCER PATIENT

Hussain A.*, Nair P.*, Karamanliev M.**, Dimitrov D.**
****Medical University – Pleven, Bulgaria.***
*****Department of Surgical Oncology, UMHAT "Dr. Georgi Stranski" - Pleven, Bulgaria.***
Presenting Author: Hussain A.
Correspondence: ayesha.husain629@gmail.com

INTRODUCTION

Breast cancer is a malignant tumor that develops from breast tissue. The most common types are the invasive ductal and lobular carcinomas with invasive ductal carcinoma making up about 70-80% of all breast cancers. With early diagnosis the disease can be treated leading to a better prognosis and survival rates.

AIMS

To present the success rate of the treatment and follow up of the breast cancer patient who underwent the first index core-needle biopsy in our university hospital.

CLINICAL CASE

A 43-year female presented with the complaint of a painless "lump" in the left armpit. Mammography and echo mammography were negative and the prior MRI findings suggested fibrocystic mastopathy without focal changes and were highly suspected for increased risk of malignancy. Core-needle breast biopsy was performed. Histopathology revealed invasive carcinoma of the left mammary gland with positive axillary lymph nodes. Four cycles of neoadjuvant chemotherapy were held. The MRI data after the chemotherapy showed response to the therapy. Radical operation was performed later - quadrantectomy of the left mammary gland with axillary lymph nodes dissection. Postoperative radiation therapy was suggested and the follow up of mammography and CT/PET scans were normal and there was no evidence of recurrence of the disease 3 years after the diagnosis. Other types of biopsies could have changed the management and breast-conserving operation could have been impossible. Core-needle biopsy is the golden standard in patients with breast lesions. When following the guidelines, complex care and world-standard therapy could be given to the patient.

CONCLUSION

In conclusion, this case emphasizes on the successful and favourable outcome of the treatment, including breast-conserving surgery, without any recurrence in the patient after proper biopsy performed.

KEY WORDS: biopsy, breast cancer, invasive carcinoma.

LAPAROSCOPIC SPLENECTOMY – INTRODUCTION, TECHNIQUES AND PRESENTATION OF TWO CASES

Ilieva Ts. A.*, Mitev D. R.*, Yankov A. Y.*, Bankov Ts. I.*, Filipov E. T.**, Ivanov Ts. M.**, Ngyuen D. D.***
****Medical University – Pleven, Bulgaria.***
*****Department of General Surgery, Heart and Brain Hospital, Pleven, Bulgaria.***
******First surgical clinic, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria.***
Presenting author: Ilieva Ts. A.
Correspondence: tsvetoslavailieva000@gmail.com

INTRODUCTION

Laparoscopic splenectomy is a niche type of surgery due to the narrow indications. Because of this it is most commonly performed in specialized centers and is rarely done by most surgeons.

AIM

To present the indications and surgical techniques of Laparoscopic splenectomy with presentation of two cases.

CASE REPORTS

First patient - 36 yo female presented to general surgery clinic "Heart and brain" hospital - Pleven referred from haemotologist due to marginal splenic haematoma with extreme splenomegalia. CT scan revealed approximate size of 22x17x7,5 cm. Second patient - 77 yo female with follicular non-Hodgkin lymphoma with frequent hemolysis crisis was referred from haematologist for elective splenectomy. CT scan showed approximate size of 12,3x7x12 cm.

METHODS

Patient 1 underwent splenectomy with selective ligation of splenic vessels. On Patient 2 a splenestomy was performed via "Essen maneuver" with vascular stapler.

CONCLUSION

Laparoscopic splenectomy is a feasible procedure in patients with indications for splenectomy, especially those who are shown for elective procedure. The laparoscopic procedure provides less postoperative pain, faster recovery and return to normal lifestyle.

KEY WORDS: laparoscopic slpenectomy, splenic haematoma, splenomegaly.

MEDIAL NERVE NEUROPATHY ASSOCIATED WITH FRACTURES OF THE RADIUS AND ULNA

Kostov K.*
Faculty of Medicine, Medical University of Plovdiv, Bulgaria; Department of Orthopedics, UMHAT "Eurohospital" - Plovdiv, Bulgaria.
Presenting author: Kostov K.
Correspondence: kirilkostov21@gmail.com

INTRODUCTION

Neuropathy is a very serious condition which could lead to a lifelong disturbance or loss of sensation and motor functions in the innervated area. If the neuropathy represents a transected peripheral nerve, the said nerve endings can be sutured back together through neurorrhaphy.

AIM

The aim of this case report is to evaluate the clinical outcome and success of neurorrhaphy after iatrogenic neuropathy.

METHODS

The presented case report is about a 50 year old male patient who has entered the orthopedic clinic for a physical examination after a fall. X-ray imaging discovered multiple distal fractures in the radius and ulna, loco typico. Surgery is performed under general anesthesia, and Henry's approach is taken in an attempt to preserve the radial artery. However, upon attempting to identify the medial nerve, it's cut obliquely. Neurorrhaphy on the epineurium is performed with atraumatic threads, after which is done reposition of the bone fragments and immobilization through metal osteosynthesis.

RESULTS

After the surgery, the wound has been cleaned thoroughly followed by hemostasis of the area and suturing. The nerve's function has been restored completely for the duration of six months.

CONCLUSION

Different surgical approaches determine the outcome of an operation. Choosing the right approach is crucial for prevention of such complications, since surgery is the only effective method for treating such injuries as the ones in the case.

KEY WORDS: fracture, neuropathy, neurorrhaphy, radius, ulna.

TARGETED AXILLARY DISSECTION FOR BREAST CANCER PATIENTS - AN ALTERNATIVE TO STANDART LYMPH NODE STAGING METHODS

Kotseva Ts.*, Ivanov Ts.**, Deliyski T.**
****General Surgery and Surgical Oncology Study Group - Heart and Brain Hospital, Pleven, Bulgaria.***
*****General Surgery Clinic, Heart and Brain Hospital, Pleven, Bulgaria.***
Presenting author: Kotseva Ts.
Correspondence: tsvety.kotseva@gmail.com

INTRODUCTION

Axillary lymph node status in breast cancer patients is one of the most important prognostic markers. Lymph node staging in patients after neoadjuvant chemotherapy who achieve clinically negative axillary lymph node status after initially metastatic lymph nodes is currently controversial. Axillary lymph node dissection (ALND) is still the standard approach, however, it is associated with high postoperative morbidity. Sentinel lymph node biopsy (SLNB) is a less invasive alternative to ALND, but with a high risk of false-negative rate (FNR), reaching 14-15% in some studies. Targeted axillary dissection (TAD) is an innovative technique that combines the minimal trauma of SLNB with a lower FNR and it could be considered as a better alternative.

AIM

The aim of this study is to review the literature on FNR of TAD for breast cancer patients after neoadjuvant chemotherapy.

METHODS

We conducted a literature analysis in PubMed, Springerlink, Medline using the following keywords - breast cancer, targeted axillary dissection, false negative rate. All studies reporting FNR of TAD in breast cancer patients and clinically negative axillary status after neoadjuvant chemotherapy and primary positive lymph status were analyzed. All the analyzed articles were in English.

RESULTS

We found 56 articles on the set keywords, of which 41 received a subsequent analysis with a total of 1204 patients meeting the set criteria. The mean FNR of TAD in our analysis was 7.2%.

CONCLUSION

TAD has a lower false-negative rate compared to SLNB with less patient trauma compared to ALND. Sufficient data on the quality of life and oncological outcomes are still lacking.

KEY WORDS: targeted axillary dissection, breast cancer, false-negative rate.

SIMULATED 3D MODEL OF THE MIDDLE EAR FOR THEORETICAL AND PRACTICAL TRAINING FOR STUDENTS N

Vishnu K. S.*, Jomal G.*, Hridhya M.*, Mirchev S.**
****Medical University – Pleven, Bulgaria.***
*****Department of ENT, University Hospital "Dr. G. Stranski", Pleven, Bulgaria.***
Presenting author: Vishnu K. S.
Correspondence: v4vishnudev1995@gmail.com

INTRODUCTION

Post-graduate ENT diseases students and beginning otosurgeons go through a very important initial training period. The first steps in otosurgery are taken step by step. The transition from theoretical knowledge to temporal bone dissection courses is long and difficult. The lack of preliminary preparation vitiates and increases the cost of temporal bone dissection exercises.

Simulated models bridge the gap between theory and practice and contribute to a more effective training.

AIM

Developing a simulated 3D model of the mastoid process in real size and the part of the facial nerve passing through it; using a simulated 3D model of mastoid process for anatomical visualization of the hard to find and invisible structures of the middle ear and facial nerve and for nosological training.

METHODS

We use a cadaver temporal bone on which post auricular facial nerve decompression has been performed. Then we follow it with elaborating a silicone model based on a print taken from the operative cavity. The next step is to 3D print the models and colouring it for identification purpose. All the anatomical parts are coloured in different shades. Finally putting electrical conductors and their connection to a tactile pointer and light indicators.

RESULTS

The model help us in identifying the hard to find and invisible microstructures of the middle ear and the part of the facial nerve passing through it. It also allows us to work in two modes, the anatomical and the nosological. It contributes to more lasting preservation of knowledge, using the principle of active learning and training visual and tactile memory.

CONCLUSION

The model is developed for tuition, precedes training models and can be improved.

KEY WORDS: temporal bone dissection, temporal bone simulation.

BILATERAL MASTECTOMY WITH AUGMENTATION AND SLNB: A CASE REPORT OF A 31 YEAR OLD PATIENT WITH MULTIFOCAL DUCTAL CARCINOMA IN SITU GRADE 3

Shanker A.*, Angelova I.*, Galasyuk M.*, Karamanliev M.**, Petrova I.**
****Medical University – Pleven, Bulgaria.***
*****Department of Surgical Oncology, University Hospital "Dr. G. Stranski", Pleven, Bulgaria.***
Presenting Author: Shanker A.
Correspondence: aparajeya247shanker@gmail.com

AIM
The aim of this case report is to describe the operative technique, operative philosophy and measurements of follow up in young patients with breast cancer requiring bilateral mastectomy and immediate reconstruction and implantation.
METHODS
A 31 year old female patient presented to the Department with a lump in the left breast. Imaging and biopsy indicated bilateral mastectomy. A bilateral mastectomy was performed, with axillary Sentinel Lymph Node Biopsy (SLNB), followed by immediate reconstruction. Silicone gel implants were used for immediate reconstruction. The operative approach was a skin-sparing bilateral mastectomy with infra-pectoral implant placement.
RESULTS
The patient recovered well from the operative procedure and was administered the BREAST-Q (Augmentation) questionnaire at 60 days post-operatively. The approach of bilateral mastectomy with immediate augmentation was made to ensure aesthetic outcome and patient's psychosocial well-being. Pathological analysis of the SLNB revealed no metastasis. Histopathological analysis of the resected tumour confirmed a multifocal ductal carcinoma grade 2-3. Receptor analysis revealed an HER(-), HER2(-), Ki 67 (+) tumour. The patient had some blood loss (Clavien-Dindo Grade 1). Upon follow-up, she showed improved Quality of Life, and various domains within the BREAST-Q questionnaire were marked positively by the patient at 60 days post-operatively.
CONCLUSION
Bilateral mastectomy with concurrent Sentinel Lymph Node Biopsy and immediate reconstruction with aesthetic implants in this patient showed positive outcomes. It is recommended that aesthetic reconstruction should be considered within the operative philosophy for all patients, with an emphasis for younger patients.

KEY WORDS: breast reconstruction, oncosurgery, breast cancer.

POSSIBLE RELATIONSHIP OF ANABOLIC STEROID USE AND FOLLICULITIS DECALVANS: A CASE REPORT OF 27-YEAR-OLD BODYBUILDER

Takagiwa H.*, Bogeva I.**
****Medical University - Pleven, Bulgaria.***
*****Clinic of Plastic and Reconstructive Surgery, UMHAT "Dr Georgi Stranski" - Pleven, Bulgaria***
Presenting author: Takagiwa H.
Correspondence: hirolindo2016@gmail.com

INTRODUCTION

Folliculitis decalvans (FD) is a rare inflammatory scalp disorder with a complex, multifactorial pathogenesis that leads to permanent destruction of hair follicular stem cell. It predominantly occurs in young and middle-aged adults, with a slight male predominance. Staphylococcus aureus as well as autoimmunity seem to play a causal role. The most frequent clinical manifestations are follicular pustules and diffuse and perifollicular erythema that heal with centrifugal scarring and this alopecia is most often
located at the vertex and occipital area.

AIM

To present an unique case of folliculitis decalvans in 27-year-old bodybuilder.

METHODS

A retrospective analysis of medical records, clinical findings, and investigations of patient.

RESULTS

A 27-year-old patient was admitted to the Clinic of Plastic and Reconstructive Surgery at the "Dr. Georgi Stanski University Hospital" with an extensive history of anabolic steroid use and complaints of a skin lesion in occipital region. Physical examination revealed the presence of a tumor formation with a diameter of about 6 mm, multilobar, hard, with discharge and secretion on palpation. Biopsy confirmed severe destructive folliculitis and perifolliculitis with giant cells foreign body and Langhans; in the infiltrate and in the follicles. An excision of lesion was performed.

CONCLUSION

FD is mostly described as a local benign lesion. However, it could have a potential to progress into squamous cell carcinoma. Therefore, it is imperative to prevent occurrence among individuals who are immunomodulated such as anabolic steroid users. In order to confirm the etiology, more studies are required.

KEY WORDS: anabolic steroid, folliculitis decalvans, autoimmunity.

PLEURODESIS THROUGH PIGTAIL CATHETER IN PATIENTS WITH MALIGNANT PLEURAL EFFUSION

Valkova A.R.*, Delcheva R. D.*, Stoyanov S. K.*, Popov Z. D.*, Bekyarova A.*, Nenkov R.N.*
****Thoracic Surgery Clinic, UMHAT „St. Marina" – Varna, Bulgaria.***
Presenting author: Valkova A.R.
Correspondence: antoniya.valkova@gmail.com

AIMS
Pleural effusion is a frequent and disturbing complication of malignant disease. Pleurodesis is a method to maintain the patient's quality of life. Chemical pleurodesis is a therapeutic procedure applied to create symphysis between the parietal and visceral pleura by intrapleural administration of various chemical agents. The aim of this study is to share our experience with chemical pleurodesis through a pigtail catheter in patients with malignant pleural effusion (MPE).
MATERIALS AND METHODS
The study was conducted at the Thoracic Surgery Clinic at the Varna UMHAL „St. Marina" for the period from January 2021 to December 2021. A total amount of 671 patients with MPE were included. 168 (25%) of them underwent pleurodesis. Chemical pleurodesis is performed through a small-bore catheter. 2% lidocaine diluted to 20cc with physiological serum is instilled into the pleural cavity for local anesthesia. 30 minutes later 1000mg of doxycycline in 50 ml of saline was instilled into the pleural cavity through the drain.
RESULTS
168 patients with MPE were included in our study - 95 (56.5%) women and 73 (45.5%) men. 65 (38.7%) had breast carcinoma, 53 (31.5%) lung carcinoma, 27 (16.1%) lymphoproliferative disease and 23 (13.7%) other malignant disease. Complete success was achieved in 132 (78.6%), partial success in 19 (11.3%) and failure in 17 (10.1%). Complications were observed in 35 (20.8%) patients – 24 (14.3%) – pain, nausea – 11 (6.5%), fever in 22 (13.1%).
CONCLUSION
Maintaining MPE with chemical pleurodesis via a small-bore chest tube is effective and well tolerated. The outcome is improved quality of life in patients with malignant diseases.

KEY WORDS: pleurodesis, pigtail catheter, pleural effusion.

DEEP VEIN THROMBOSIS AS A COMPLICATION FOLLOWING A TOTAL KNEE ARTHROPLASTY – A CASE REPORT

Kovachev V.*, Gigov H.*, Wakili M.*, Shittu S.O.**, Odumosu E.A.**
****Department of "Orthopaedics and Traumatology", Medical University – Pleven, Bulgaria.***
*****Students at Medical University – Pleven, Bulgaria.***
Presenting author: Shittu S.O.
Correspondence: shittu.os@outlook.com

INTRODUCTION

Total knee arthroplasty (TKA), also known as total knee replacement surgery (TKR) is a well-established surgical orthopaedic procedure utilized in the treatment of arthritis and various knee deformities. Over 20 complications have been associated with TKA, including: vascular injury and hemorrhage, intraoperative fractures, prosthetic joint infection, joint dislocations, thromboembolic disease and deep vein thrombosis (DVT).

DVT is one of the most severe complications following a TKA, and has been reported with an incidence as high as 72% in western populations. Therefore, it is essential that screening and prophylactic measures are taken to prevent the occurrence of DVT.

AIMS

We report a case of postoperative deep vein thrombosis (DVT) complicating a unilateral Total Knee Arthroplasty at the orthopaedic and traumatology clinic branch of the Georgi Stranski University Hospital. Pleven, Bulgaria.

CASE REPORT

An 81-years-old male previously diagnosed with severe osteoarthritis of the left knee which worsened after being involved in an accident where he was hit by a motor vehicle causing him to suffer contusion to his left knee. Due to the state of the knee, a TKA was performed, which was then complicated post operatively with a DVT in the lower left limb. A vascular team was consulted and surgical management was done for the DVT.

CONCLUSION

Great care should be taken to minimise the risk of having DVT in patients undergoing a TKA. DVT screening and prophylaxis are paramount for patient outcomes post TKA.

KEY WORDS: total knee arthroplasty (TKA), deep vein thrombosis (DVT), osteoarthritis, DVT screening, DVT prophylaxis.

TOTALLY EXTRAPERITONEAL REPAIR- A CREDIBLE ALTERNATIVE TO OPEN REPAIR

Syeda S.A.*, Khan A.M.*, Zafar M.* Karamanliev M.P.**, Dimitrov D.D.**
****Medical University - Pleven, Bulgaria.***
*****Department of Surgical Oncology, University Hospital "Dr. G. Stranski", Pleven, Bulgaria.***
Presenting author: Syeda S.A.
Correspondence: sabaaly96@gmail.com

INTRODUCTION

Inguinal hernia is a very common clinical entity encountered by general surgeons. It has been traditionally treated using Lichtenstein repairs, but in the last two decades, laparoscopic repair has become increasingly popular due to the introduction of transabdominal preperitoneal and totally extraperitoneal (TEP) repair techniques.

METHODS

We present the case of a 39-year old man with indirect inguinal hernia who presented with heaviness and swelling in the right groin area when lifting heavy objects, with no complaints of defecation and urination. He was surgically treated using TEP repair technique. The Hasson cannula was used to insufflate CO2 into the preperitoneal space and two 5-mm trocars were inserted and instruments were introduced. The hernial sac was removed from the cord structures. The extraperitoneal space was dissected bluntly and sharply from the umbilicus to the pubic tubercle in a vertical direction, and horizontally from the pubic tubercle to the anterior superior iliac spine. A 9/15 cm mesh was inserted and secured with non-absorbable tacks. No urinary catheter was placed.

RESULTS

Early mobilization (2 hours postoperatively) was achieved and patient was placed on solid diet 4 hours postoperatively. He was discharged on postoperative day 2.

CONCLUSION

TEP is a very credible alternative to open hernia repairs but has a steeper learning curve, with complications such as vascular and bladder injuries. However, with increasing expertise and experience, TEP can lead to reduced hospital stay, faster recovery and return to normal activities and work, less pain, better quality of life, and overall provide the patients with good benefits.

KEY WORDS: herniorrhaphy, totally extraperitoneal (TEP), inguinal hernia, laproscopic, surgery.

HEALTH CARE SECTION

CHAIRMEN:

Assoc. prof. Pencho Tonchev, MD, PhD

SECRETARY:

Robert Gjoshev, OC

There's no such thing as alternative medicine; if it works, it's just called medicine.

Ed Yong

CARE AND PREVENTION OF DECUBITUS ULCERS – CHALLENGES AND OPPORTUNITIES IN THE NURSING PROFESSION

Todorova M. K.*, Gateva T. N.*
****Medical University – Pleven, Bulgaria.***
Presenting author: Todorova M. K.
Correspondence: maria.kalinova.t@gmail.com

AIMS
To analyse the severity of decubitus ulcers treated in DCPSS of UMHAT „Dr. G. Stranski“ - Pleven and the result of complex treatment.
MATERIALS AND METHODS
A retrospective study covering a 2-year period 2020-2021. Chemical, biological and surgical debridement, rehabilitation and vacuum therapies were applied.
RESULTS
The results are: 4 patients cured, 7 chemical, 1 biological, 7 surgical debridements and 4 drainage procedures were performed. Lying days - 17, mortality - none, improved 4.
CONCLUSIONS
Early diagnosis, treatment and proper nursing care are essential. Early diagnosis and timely care significantly affect patients' health. Prevention of the development of this complication is efficient, cheap and successful.

KEY WORDS: decubitus ulcers, diagnosis, treatment, nursing care, prevention.

PHD STUDENTS SECTION

CHAIRMEN:

Assoc. prof. Galya Stavreva, MD, PhD

SECRETARY:

Kristina Peeva, OC

Only those who will risk going too far can possibly find out how far one can go.

T. S. Eliot

SERUM LEVELS OF IgM AND IgG AUTOANTIBODIES TO ADVANCED GLYCATION END PRODUCTS OF VASCULAR ELASTIN IN HYPERTENSIVE PATIENTS WITH TYPE 2 DIABETES

Borisova A.*, Kostov K. *, Blazhev Al. **
**** Department of Pathophysiology, Medical University - Pleven, Bulgaria.***
***** Department of Biology, Medical University-Pleven, Bulgaria.***
Presenting author: Borisova A.
Correspondence: : draborisova@abv.bg

AIMS
Increased glycation of elastin is an important factor for vascular changes in diabetes.
METHODS
Using the ELISA method, we determined serum levels of IgM and IgG autoantibodies to advanced glycation end products of vascular elastin (anti-AGE EL IgM and anti-AGE EL IgG) in 59 hypertensive patients with type 2 diabetes (T2D) and 20 healthy controls. Serum levels of matrix metalloproteinases-2 and -9 (MMP-2 and MMP-9) and C-reactive protein (CRP) were also determined.
RESULTS
The levels of anti-AGE EL IgM antibodies in the T2D group were similar to those in the control group, while those of anti-AGE EL IgG antibodies were significantly higher ($p = 0.017$). Significant positive correlations were found between the levels of anti-AGE EL IgM antibodies and MMP-2 ($r = 0.322$; $p = 0.013$) and between the levels of anti-AGE EL IgG antibodies and CRP ($r = 0.265$; $p = 0.042$).
CONCLUSION
Our study showed that elevated anti-AGE EL IgG antibody levels may be an indicator of enhanced AGE-modification and inflammatory-mediated destruction of vascular elastin in hypertensive patients with T2D. Anti-AGE EL IgM antibodies may reflect changes in vascular MMP-2 activity and their elevated levels may be a sign of early vascular damage.

KEY WORDS: hypertension; type 2 diabetes; advanced glycation end products (AGEs); autoantibodies to AGEs of vascular elastin.

POTENTIAL ASSOCIATION BETWEEN COVID-19 AND POST-INFECTION THYROID DISEASES

Todorova M. S.*
Department of Endocrinology, University Hospital "Dr. Georgi Stranski" – Pleven, Bulgaria.
Presenting author: Todorova M.
Correspondence: malvito@mail.bg

AIMS
In 2020, a new unknown virus called Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2), the causative agent of the disease COVID-19, struck the world. Its post-infectious adverse effects on the thyroid gland are still poorly understood.
The aim of this research is to present the data accumulated up to now regarding the potential association between COVID-19 and the thyroid hormonal status changes and thyroid diseases.
METHODS
A literature review was performed on various databases on the impact of COVID-19 on the thyroid gland and our clinical experience was presented.
RESULTS
Current literature data indicate that SARS-CoV-2 affects thyrocytes via two mechanisms: a direct cytotoxic and an immune-mediated. As a result of this action, subacute and chronic autoimmune thyroiditis, severe forms of thyrotoxicosis, with a predominant destructive nature, and manifestations of the so-called Euthyroid sick syndrome occur most frequently. To what extent the changes are reversible is still unknown. This gives rise to a need to carry out additional tests, and the Clinic of Endocrinology has set them up.
CONCLUSION
This review examines in detail the effects of SARS-CoV-2 on the thyroid function and possible future complications. The purpose is to answer the questions whether SARS-CoV-2 causes thyroid diseases per se and whether an increased incidence of thyroid diseases is to be expected after COVID-19 recovery based on the results of several well-established studies.

KEY WORDS: COVID-19, thyroid hormones, thyroid gland.

HORMONAL CHANGES IN THE HYPOTHALAMIC-PITUITARY-ADRENAL AXIS IN COVID-19 INFECTION

Victorov I., Todorova K. N.**
**Department of Endocrinology and Metabolic diseases, University Hospital "Dr. Georgi Stranski" – Pleven, Bulgaria.*
Presenting author: Victorov I.
Correspondence: ivan_yordanovmd@abv.bg

AIMS
The interrelationship between the not-long-ago found SARS-CoV-2, one of the Coronaviruses, and the changes in the hormonal status of the hypothalamus-pituitary-adrenal axis (H-P-A) was indisputably proven in many researches covering actively sick patients. A key role in this affection take part the organ specific receptors, the autoimmunity, as well as the direct toxic effect of the virus over the endocrine glands. In this review is presented the problem focused on the influence of SARS-CoV-2 on the H-P-A and its purpose is to disclose the way SARS-CoV-2 causes their organic and functional damage.
METHODS
A literature study has been made, evaluating the state of the art, referring to the problem focusing on the hypothalamic-pituitary-adrenal axis.
RESULTS
The collected data up to this moment, show that a key role in the affection of this axis, take part the organ specific receptors, the autoimmunity, as well as the direct cytotoxic effect of the virus over the H-P-A. The clinically manifested partial hypopituitarism shows predominant reduction in the synthesis of thyroid hormones and cortisol. The damaging of the adrenal gland is as a result of tissue destruction by the direct cytotoxic effect or microthrombotic mechanism. The occurrence of primary or secondary hypocorticism is a bad prognostic sign for evaluating the disease outcome.
CONCLUSION
Our own data confirm the unfavourable effect of the virus on the H-P-A and let us suggest and assume that in most cases the changes are reversible.

KEY WORDS: SARS-CoV-2, hypothalamus-pituitary axis, autoimmunity, organ dysfunction.

SCROTAL EDEMA IN TREATMENT WITH PERITONEAL DIALYSIS

Akisheva A.M.*, Todorova G.V.*, Todorov V.V.*, Nedyalkov K.L.**
****Clinic of Nephrology and Dialysis, University Hospital "Dr. G. Stranski", Pleven, Bulgaria. Department of Nephrology, Hematology, Gastroenterology, Medical University – Pleven, Bulgaria.***
*****Department of Coloproctology and Peptic-Septic Surgery, University Hospital "Dr. G. Stranski", Pleven, Bulgaria.***
Presenting author: Akisheva A.M.
Correspondence: aygulya.akisheva@gmail.com

INTRODUCTION

Peritoneal dialysis (PD) is a contemporary extracorporeal blood purification method. Along with its many advantages, it can be accompanied by various complications. Some of them are rare, with few reports and not entirely known for the practicing nephrologists.

CASE PRESENTATION

This is a case of a 36-year-old male patient with chronic mesangioproliferative glomerulonephritis, proven histologically in 2011. Due to advanced chronic renal failure (CRF), in February 2022 treatment with continuous ambulatory peritoneal dialysis (CAPD) has been initiated. Two months later the patient noticed enlargment of the scrotum. Bilateral inguinal hernias were found and the patient underwent laparoscopic hernioplasty. PD treatment was resumed 24 hours after the surgery. In the early postoperative period the patient developed aseptic inflammation, due to the surgery.

DISCUSSION

Genital edema(GE) is caused by effusion of dialysis solution from the peritoneal space and entering the inguinal canal. Its prevalence is 4-10%. Depending on the time of occurrence it can be early (in the first 30 days after initiation of PD) or late leak. The leading symptom is genital edema. Reduction in ultrafiltration and hyperhydration can be observed in more severe cases. Treatment includes operative correction of the peritoneal defect, reduction in the volume of infused dialysis solution during the PD exchanges, change of the PD type or temporary transfer to hemodialysis.

CONCLUSION

The increase of intraabdominal pressure in patients on PD is the main predisposing factor for development of GE. It is important to look for the cause of GE and correct it on time in order to provide a better perspective for the treatment with PD.

KEYWORDS: peritoneal dialysis, scrotal edema.

HEMOPERITONEUM IN PERITONEAL DIALYSIS TREATMENT - AN NOT WELL KNOWN COMPLICATION

Todorova G.V.*, Akisheva A.M.*, Todorov V.V.*
****Clinic of Nephrology and Dialysis, University Hospital "Dr. G. Stranski", Pleven, Bulgaria. Department of Nephrology, Hematology, Gastroenterology, Medical University – Pleven, Bulgaria.***
Presenting author: Todorova. G.V.
Correspondence: gervastod@gmail.com

INTRODUCTION

Peritoneal dialysis (PD) is a widespread method for replacing kidney function in patients with chronic kidney disease (CKD). It is a preferred method due to its flexibility and autonomy. In most countries, patients treated with PD have better survival and better quality of life compared to patients treated with hemodialysis. Hemoperitoneum (HP) is rare PD complication and has an incidence of up to 6-8% of all complications. HP is presented when there is a coloration of the drained solution from light pink to dark red. It is classified in three grades – mild, moderate and severe.

CASE PRESENTATION

We present a clinical case of a 43-year-old woman with CKD on PD treatment (CAPD), since 2014. In December 2017 HP, due to haemorrhagic ovarian cyst, was diagnosed. Conservative therapy was made, without significant effect. Laparoscopic surgery was performed. PD treatment was resumed in the early postoperative period, after the first PD dwell was drain a clear solution. HP was successfully healed.

DISCUSSION

The patients on renal replacement therapy with PD are about 11% of the total dialysis population. The mild HP usually resolves spontaneously and remains idiopathic. The moderate HP is well expressed leading to deviations in the blood count and severe can be life-threatening.

CONCLUSION

HP in PD is a rare and not well-known complication. It is more often observed in women, in men it is an incident. The most of publications are dedicated to single cases. The reasons for its occurrence are very diverse. HP requires careful and thorough diagnosis. It is better that when educating patients about PD, they should be informed about the risk of HP.

KEY WORDS: chronic kidney disease, peritoneal dialysis, hemoperitoneum.

PHARMACY SECTION

CHAIRMEN:

Assoc. prof. Stanislav Tsankov, MD, PhD

Assoc. prof. Diana Pendicheva, MD, PhD

SECRETARY:

Elitsa Lalkova, OC

Good medicine always tastes bad.

Ron Hall

GLICLAZIDE-EXCIPIENT INTERACTION STUDY WITH COMMON CHEMICALLY REACTIVE EXCIPIENTS

Mihaylov V.*, Mihaylova K.*, Titeva S.*, Ivanova I.*
****Department of Pharmaceutical Sciences and Social Pharmacy, Medical University - Pleven, Bulgaria.***
Presenting author: Mihaylova K.
Correspondence: kmihailova95@abv.bg

INTRODUCTION

Evaluation of drug-excipient compatibility is necessary step in the formulation of pharmaceutical dosage forms. Some excipients may be chemically reactive leading to change in drug molecules and thus potentially changing its stability, bioavailability, efficacy and safety. Drug-excipient compatibility tests are useful in reducing the quality deficits and increasing the quality assurance.

Gliclazide is a sulfonylurea drug that stimulates the release of insulin from pancreatic beta-cells and is being administered once a day as a 30-80 mg dose.

AIM

The aim of the present study was to prepare mixtures containing Gliclazide with some of the most used excipients and evaluate their compatibility and study the interactions that occur.

MATERIALS AND METHODS

Binary mixtures, containing Gliclazide with some of the most used pharmaceutical excipients (lactose, sodium starch glycolate, magnesium stearate, calcium hydrogen phosphate and colloidal silicon dioxide) were prepared in 1:1 mass ratio in glass vial. Stress conditions were provided by adding 25% (v/w) water to the samples, which were then incubated at 40^{o}C and 75% humidity for 3 months.

RESULTS

The processed mixtures were examined using High Performance Liquid Chromatography (HPLC) with mobile phase containing methanol and 3,5 pH Potassium Di hydrogen ortophosphate buffer. Changes in the qualitative and quantitative composition were determined in some of the samples.

CONCLUSION

Gliclazide-excipient mixtures were successfully prepared and examined. The study determined incompatibility between Gliclazide and some of the excipients presumably due to occurrence of Maillard reaction involving the amine group in Gliclazide.

KEY WORDS: Gliclazide, excipients, compatibility, interaction, HPLC, Maillard reaction

SYNTHESIS AND EVALUATION OF NOVEL BENZO[A]QUINOLIZIDINE ANALOGS AS POTENTIAL DPP-IV INHIBITORS

Pesheva A. P.*, Aleksandrova T. G.*, Burdzhiev N. T.**, Pashev A. S.*
****Faculty of Pharmacy, Medical University – Pleven, Bulgaria.***
*****Faculty of Chemisty and Pharmacy, Sofia University "St. Kliment Ohridski", Sofia, Bulgaria.***
Presenting author: Pesheva A.P.
Correspondence: al.ppesheva@gmail.com

INTRODUCTION

Dipeptidyl peptidase IV is a highly specific serine protease enzyme, whose inhibition is widely studied as a potential treatment for chronic metabolic type 2 diabetes mellitus. Recent studies have discovered that aryl-substituted benzo[a]quinolizidine compounds have the potential to be highly active DPP-IV inhibitors. Therefore, developing new methods for synthesizing the benzo[a]quinolizidine ring system would be significant for that purpose.

AIMS

Our recent research is focused on the design, synthesis and biological evaluation of novel benzo[a]quinolizidine compounds and their analogs by a one-step reaction of cyclic anhydrides with imines.

METHODS

Molecular docking is used to determine the binding potential of the designed compounds into the active site of DPP-IV. The inhibitory activity is measured with commercial inhibitory assay kit. The cytotoxic activity is assessed on mesenchymal stem cells.

RESULTS

The obtained benzo[a]quinolizidine analogs show a promising binding affinity to the active site of human DPP-IV enzyme and one leading compound was identified to exhibit inhibition in the micromolar range. All of the compounds show no cytotoxic activity in the same micromolar range.

CONCLUSION

The developed compounds have the potential to become building blocks for future synthetic bioactive molecules.

KEY WORDS: heterocyclic synthesis, DPP-IV inhibition, docking studies.

PREPARATION, CHARACTERIZATION AND EVALUATION OF INDOMETHACIN-LOADED MICROSPHERES

Haliibryamova E. I.*, Tosheva M. T.*
****Department of Pharmaceutical sciences and social pharmacy, Medical University - Pleven, Bulgaria.***
Presenting author: Tosheva M.T.
Correspondence: mihi.tihomirova@gmail.com

INTRODUCTION

Indomethacin is a nonsteroidal, non selective COX-inhibitor. It may cause serious adverse effects, including stomach irritation. Indomethacin belongs to the Class II of Biopharmaceutical Classification System. The drug action can be modified as desired using various technological methods including incorporation of the active agent into multiunit dosage forms – microspheres which should be explored as a possible option for the optimization of its therapeutic properties.

AIM

The aim of the present study was to prepare microspheres with three different ratios of indomethacin-ethylcellulose to evaluate their technological and biopharmaceutical properties - size distribution, shape characteristics, drug loading and in vitro dissolution process.

METHODS

The evaluated microspheres were prepared by using the emulsion solvent evaporation technique. The formulation process of the microspheres included using indomethacin and ethylcellulose (45 mPa.s), acetone, liquid paraffinum, polysorbate 20, n-hexane.

RESULTS

The microspheres were tested to observe their particle size distribution, shape and surface characteristics, determination of drug loading and optimal formulation for sufficient indomethacin drug delivery. The in vitro dissolution study was carried out using a closed system with rotating paddle to ensure sink conditions.

CONCLUSION

It has been concluded that there is a correlation between the concentration of the polymer and the characteristics, encapsulation efficiency and subsequent in vitro release rate from the formulated microspheres. The microspheres containing indomethacin-ethylcellulose in ratio 1:2 showed the most optimal technological and biopharmaceutical properties compared to others.

KEY WORDS: indomethacin, microspheres, ethylcellulose, emulsion-solvent evaporation technique, modified release.

SYNTHESIS AND IN VITRO STUDY OF *CIS*- AND *TRANS*-3-SUBSTITUTED-(6,7-DIMETHOXY)-3,4- DIHYDROISOCOUMARIN-4-CARBOXILIC ACIDS AS INHIBITORS OF CARNITINE ACYLTRANSFERASE

Valkova S. B.*, Minev H. H.*, Stoyanova S. I.**, Bogdanov M. G.***
**** Faculty of Pharmacy, Medical University – Pleven, Bulgaria.***
***** Faculty of Chemistry and Pharmacy, Sofia University "St. Kliment Ohridski", Sofia, Bulgaria.***
Presenting author: Valkova S. B.
Correspondence: mbogdanov@chem.uni-sofia.bg

INTRODUCTION

Long-chained acylcarnitines have a negative effect on lung function by inhibiting pulmonary surfactants. This causes breathing problems and is considered a risk for chronic obstructive pulmonary disease.

AIMS

This study aims to synthesize *cis-/trans*-3-substituted-(6,7-dimethoxy)-3,4-dihydroisocoumarine-4-carboxilic acids and evaluate their inhibitory activity towards carnitine acetyltransferase (CrAT) – a representative enzyme of the carnitine acyl transferases family.

METHODS

Known reactions between (6,7-dimethoxy) homophtalic anhydride and a variety of aldehydes, catalyzed by 4-N,N-dimethylamino pyridine, were utilized to obtain new dihydroisocoumarine derivatives. The structure, purity, and relative configuration of all synthesized compounds were elucidated using NMR analysis. We also tested the inhibitory potential of the compounds towards CrAT as a model enzyme in vitro.

RESULTS

The preliminary results showed that most of the compounds are highly effective in millimolar concentrations and that they possess higher activities than that demonstrated by the positive controls meldonium (an approved drug for the treatment of CHD) and MeGBB (a drug in the III phase of a clinical trial). Furthermore, the most active compounds showed 80% inhibitory activity at the lower micromolar range.

CONCLUSION

These preliminary but promising results can serve as a platform for developing novel, highly active CrAT inhibitors that diminish the negative effect of the long-chained acylcarnitines on the lungs. One can also see the possibility for such compounds to be applied as agents to control metabolic processes in the human body and their potential for treating ischemic disease, diabetes, and some types of cancer.

KEY WORDS: synthesis, metabolic modulators, carnitine acyl transferase, dihydroisocoumarins.

POSTER SECTION

CHAIRMEN:

Assoc. prof. Zdravka Radionova, MD, PhD

SECRETARY:

Kristina Peeva, OC

Declare the past, diagnose the present, foretell the future.

Hippocrates

P.1. HEPATIC ARTERY ANEURYSMS - RARE, YET IMPORTANT, CAUSE OF ABDOMINAL PAIN:A CASE REPORT

Biserova E. A.*, Nikolova I.R.**, Popov V. G.**, Lukanova P.R.**
****Medical University – Pleven, Bulgaria.***
*****Department "Propaedeutics of internal diseases", Medical University – Pleven, Bulgaria.***
Presenting author: Biserova E. A.
Correspondence: elibiserova015@abv.bg

INTRODUCTION

Hepatic artery aneurysms (HAA) are rare and account for about 20% of all visceral aneurysms. Although it is a rare pathology, often an incidental finding in a patient without any complaints. Signs and symptoms are very unspecific. The clinical manifestations depend on the size of the aneurysm and include epigastric pain, obstruction of biliary tract, rupture and death.

CASE PRESENTATION

We present a clinical case of hepatic artery aneurysm, presenting with abdominal pain. A 67-year old woman was admitted to the Clinic of Internal diseases of UMHAT „Georgi Stranski", Pleven with complaints of epigastric pain with acid. The pain was in no way connected to the food the patient had eaten. The complaints persisted for 1 month and were not affected by proton-pump inhibitors (PPIs) intake. Using ultrasonography, an anechoic mass within a larger mass of mixed echogenicity located in the pancreatic head region, was found. Doppler sonography displayed a channel within a fusiformmass which suggested a vascular origin. Angiography was the definitive diagnostic technique for this abnormality. An abdominal computed tomography angiogram was completed.

That showed a saccular aneurysm with diameter of 28mm.The patient was referred to a vascular surgery for treatment.

CONCLUSION

In conclusion, this case distinctly presents that hepatic artery aneurysm is a rare, yet important cause, in patients with non-specific abdominal pain.

KEY WORDS: hepatic artery aneurysm, abdominal pain.

P.2. CHRONIC STRESS: INVOLVEMENT OF NOCICYPTIN ANALOGUES AND CATECHOLAMINERGIC NEUROTRANMISSION IN RATS 1

Borisova A.*, Grigorian A.*, Dimitrova A.*, Bocheva A.*
****Department of Physiology and Pathophysiology, Medical University – Pleven, Bulgaria.***
Presenting author: Borisova. A
Correspondence: draborisova@abv.bg

AIM
Stress is one of the main causes leading to a number of diseases of the immune, endocrine, central nervous systems, etc.
Nociceptin is a peptide that originates from pro-nociceptin/orphanin (FQ) and since its discovery in 1995, research has continued to understand its effects on the human body. The central nervous system is known to control many processes in the modulation of which peptides, including nociceptin, are involved. It is distributed both in peripheral and central nervous system.
Literature data shows that until now there are no studies on experimental animals with the aim of understanding the common role of nociceptin and the catecholaminergic system in the descending antinociceptive system in chronic immobilization stress.
METHODS
In this study, nociceptive tests with mechanical and thermal stimulation will be used to assess pain on male Wistar rats. A chronic immobilization stress method will be used to induce the stress.
RESULTS
It is expected that the results of the study will have a theoretical focus, as well as fundamental importance in order to understand some aspects of endogenous regulation/modulation in the course of a number of stress-induced processes.
CONCLUSION
The results of the study will have a theoretical focus, as the obtained data will enrich the concept of the antinociceptive action of the catecholaminergic system and the modulation of pain in chronic stress.

KEY WORDS: nociceptin analogs, catecholaminergic system, pain, chronic immobilization stress.

P.3. MESENTERIC THROMBOSIS IN A PATIENT WITH OBSTRUCTIVE COLON CARCINOMA

Ivanova V.I.*, Thomas S.K*, Kiran A.*, Sundar A.*, Marinova P.G.**
****Medical University - Pleven, Bulgaria***
*****Department of Surgical Diseases, Medical University – Pleven, Bulgaria.***
Presenting author: Ivanova. V.I.
Correspondence: polina_g.marinova@abv.bg

AIMS
Thrombotic complications secondary to malignancy are often attributed to renal cancer, liver cancer, and pancreatic cancer however colorectal cancer is infrequently accompanied by total tumor thrombosis. This poster aims to elucidate a rare case of colon cancer with total mesenteric thrombosis.
METHODS
A 78-year-old male presented with diffuse abdominal pain since morning; complaints of nausea, vomiting and absence of passage of stools for three days; and was subsequently admitted to the department General surgery in UMHAT "Dr Georgi Stranski".
RESULTS
The patient was immediately taken to surgery after consultation with an internist as his case was considered an emergency. During the operation, the colon was found necrotic with total mesenteric thrombosis. A subtotal colectomy and combined resection of tumor thrombosis followed by ileorectal anastomosis was made due to the advanced colon cancer. The patient continued to recover well from surgery.
CONCLUSION
The uncommoness of mesenteric thrombosis in colon cancer has a variety of implications in its outcome, complications and management. Uncertainty exists regarding the prognosis of patients with venous tumor thrombosis secondary to colon cancer. Venous tumor thrombosis indicates the existence of an aggressive cancer, which therefore predisposes to the development of liver metastasis, hence leading to a poor prognosis while complete surgical resection followed with adjuvant chemotherapy, shows long-term survival rates. This case illuminates the importance of accounting for venous tumor thrombosis as a complication of colorectal cancer, and how potentially fatal complications such as mesenteric ischemia need to be considered with a high index of suspicion.

KEY WORDS: mesenteric thrombosis, colorectal carcinoma, colectomy.

P.4. RETROSPECTIVE STUDY ON EMERGENCY POSTOPERATIVE VENTRAL HERNIA

Kiran A*, Thomas S.K*, Sundar A*, Ivanova V.I*, Marinova P.G**
****Students at Medical University - Pleven, Bulgaria.***
*****Department of Surgical Disease, Medical University - Pleven, Bulgaria.***
Presenting author: Kiran A.
Correspondence: polina_g.marinova@abv.bg

AIMS
Despite advances in surgical techniques for reconstruction of the anterior abdominal wall, the risks of complications are high after treatment of postoperative ventral hernia (PVH). This poster aims to review cases of complicated incisional abdominal hernia that have undergone emergency surgery. Herein we analyze the heterogenous presentations of PVH; and evaluate the etiology of postoperative complications after surgical reconstruction of PVH.
METHODS
A 5-year retrospective study from 2015-2019 of the patients operated for PVH was conducted at the First Surgical Clinic UMHAT „Dr.Georgi Stranski".
RESULTS
From a total of 2791 patients operated, the emergency operations were 1555 (55,7%); of which 370 were operated for PVH. In this study, distribution of clinical presentation of PVH were: bowel incarceration without necrosis- 81% ; bowel incarceration with necrosis – 10%; adhesive intestinal obstruction – 3%; bowel perforation and acute peritonitis-3%; wound dehiscence – 2%; parastomal herniation – 1%. Moreover, postoperative complications after surgical reconstruction of PVH were attributed to improper placement of the mesh and nature of prosthetic material. Mesh placed directly on intestinal loops or subcutaneously, and use of polypropylene mesh were ascribed to a higher frequency of complications.
CONCLUSION
Emergency ventral hernia repair is associated with worse outcomes than elective repair due to increased severity of patient comorbidities; acute inflammation and contamination; and metabolic, electrolyte, and nutritional disturbances. To improve prognosis, it is necessary to avoid contact of mesh with the intestine to prevent adhesive complications, and subcutaneous tissue for prevention of infection, the ideal placement of mesh would be retro muscularly and extraperitoneal.

KEY WORDS: postoperative ventral hernia, hernia, ventral hernia.

P.5. DIAGNOSTIC DILEMMA BETWEEN DISSEMINATED ABDOMINAL TUBERCULOSIS AND COLON CARCINOMA

Sundar A*, Kiran A*, Thomas S.K*, Sivakumar J*, Thampi A*,Thayil A,B* Petrova I**
****Medical University – Pleven, Bulgaria.***
*****Department of Surgical Diseases, Medical University – Pleven, Bulgaria.***
Presenting author: Sundar A.
Correspondence: sundaranandu@gmail.co

AIM
Abdominal tuberculosis (TB) comprises 5 percent of all cases of TB worldwide. Bulgaria has a low incidence of TB (19/100,000). Thus disseminated abdominal TB is a diagnostic challenge, owing to non-specific symptoms, similar diagnostic findings to other pathologies like colon cancer & rare incidence.
METHODS
Herein is reported a case of disseminated abdominal TB, which underwent extensive investigation to arrive at the confirmed diagnosis by histopathology. The diagnostic dilemma between colon carcinoma & abdominal TB is discussed.
RESULT
A 46-year-old male presented with general weakness, breathlessness, fatigue, pallor & ascites. Ultrasonography findings showed multiple hypoechogenic foci on the liver and spleen. Chest X ray revealed irregular speckled shadows bilaterally. PET/CT revealed metabolically active foci in the lung, spleen & liver, which prompted suspicion of dissemination. Clinically, the differential of colon carcinoma was considered. Fibrocolonoscopy showed no suspicious lesions upto 30cm into the small intestine. An occult cancerous process was suspected and patient was indicated for laparoscopy which revealed abundant miliary lesions in the abdominal cavity, & the parietal peritoneum was biopsied subsequently. Histopathology showed findings in support of the tuberculous inflammatory process.
CONCLUSION
Owing to a similar clinical presentation, ultrasonographic, radiological & biopsy findings, of abdominal TB & carcinoma colon, their differentiation is difficult unless aided with other modalities like colonoscopy, biopsy & PET/CT. Diagnostic laparoscopy to clinch the diagnosis of abdominal TB and eliminate extensive and unnecessary surgeries is necessary. Clinicians must establish a dynamic thinking for diagnosis and treatment and emphasize the value of PET/CT, diagnostic laparoscopy & biopsy in distinguishing TB & cancer.

KEY WORDS: tuberculosis, abdominal TB.

P.6. ADVANCEMENTS IN TRANSPLANTATION MEDICINE

Thayil A.B.*, Joseph S.*, Sivakumar J.*, Rajagopal A.*, Sundar A.*, Kiran A.*, Thampi A.*, Thomas S.K.*
****Medical University – Pleven, Bulgaria.***
Presenting author : Thayil A.B.
Correspondence: bijuthayilaleena3@gmail.com

AIM
The disparity between the dearth of organ donation and patients with end stage organ failure on the transplantation waiting list is in rapid increase worldwide. Implantable Bio-Artificial kidneys (iBAK) and xenotransplantation are beacons of hope to bridge the gap between supply and demand of kidney donation.
METHODS
This review offers an overview of recent advancements in kidney transplantation, an assessment of preclinical progress and residual barriers, and opinions regarding future breakthroughs.
RESULTS
Innovations in xenotransplantation like the production of transgenic pigs has prevented hyperacute rejection. A recent experiment of note is, the transplantation of a genetially modified porcine kidney (with donor-specific thymic tissue) from an α1, 3-galactosyltransferase gene-knockout transplanted into the groin (with femoral vessel anastomosis) of a brain-dead subject, reporting immediate functionality, passing urine & excreting creatinine. The experiment was terminated after 54 h, during this period, the kidney showed no features of rejection. The iBAK is another innovative modality conceived as an implantable device erforming normal renal function, It is devised to use silicon nanotechnology and tissue engineering to make – the hemo-cartridge (replicating glomerular function) & bio-cartridge (replicating tubular function). After successful in-vitro and animal studies of the hemo-cartridge, recently the bioreactor was also successfully tested in animals.
CONCLUSION
Based on recent developments in with respect to xenotransplantation and iBAK, the literature demonstrates promising approaches for future clinical trials.This step into new frontiers, has opened the right door into the future of management of end stage kidney disease.

KEY WORDS: xenotransplantation, genetic engineering, kidney transplant.

P.7. EFFECT OF CORTICOSTEROIDS ON FETAL LUNG MATURITY

Thomas S.K.*, Kiran A.*, Sunny S.E.*, Saji S.D.*, Francis N.*, Gyokova E.*
****Medical University – Pleven, Bulgaria.***
Presenting author: Thomas S.K.
Correspondence: suzkostho@gmail.com

AIM
2022 marks 50 years from the publication of the benchmark study by Liggins and Howie assessing the impact of antenatal corticosteroids (ACS) in reducing respiratory morbidity in premature neonates following which the effects of ACS on fetal lung maturation has been studied expansively.
METHODS
This literature review aims to interpret & critically evaluate the benefits, complications & latest protocols that have emerged in the research on ACS, since this milestone in medical history.
RESULTS
ACS facilitates fetal lung maturity, reducing the frequency of respiratory distress syndrome, neonatal mortality and overall morbidity, thus making it the standard of care in pregnant women in the setting of likely preterm birth. ACS is indicated between 24+0 and 33+6 weeks of gestation in women at high risk of preterm birth within the next 7 days. Many authors have elaborated on this precedent by adding to this body of research - including effect of ACS with exogenous surfactant therapy and the scope of ACS on extremely low birthweight neonates with access to periviable neonatal support; while some authors raised concerns about the long term outcomes like neurocognitive disorders; Studies weighing safety of administration of ACS in near term neonates in light of reported hypoglycaemia and also safety of single vs repeated doses of ACS in light of the reduction of birth weight of the newborn have also been documented.
CONCLUSION
Recent studies have emerged in the foray of perinatal medicine which prove to optimize use of ACS; namely implementing timely administration, avoiding excessive use, preventing complications and heeding to updated protocols.

KEY WORDS: antenatal corticosteroids, lung maturity, neonatal outcomes.

P.8. CT FINDINGS IN A ONE–YEAR-OLD PATIENT WITH CONGENITAL CYSTIC ADENOMATOID MALFORMATION – A CASE REPORT

Tsvetanova G. K.*, Todorova V. T.**, Nikolov N. M.**
****Medical University - Pleven, Bulgaria.***
*****Department of Radiology, University Hospital "Dr. Georgi Stranski", Pleven, Bulgaria.***
Presenting author: Tsvetanova G.K.
Correspondence: gerganakrt@abv.bg

INTRODUCTION

Congenital cystic adenomatoid malformation (CCAM) is one of the most common anomalies caused by anomalous branching of the bronchial tree during the embryonic period. It is characterized by adenomatoid proliferation of bronchioles and lack of normal alveoli. Depending on the severity of its manifestation, the CCAM is detected in the neonatal period due to respiratory insufficiency or at a later age, when searching the cause of repeated infections.

AIM

The aim of this poster is to present imaging findings of a relatively rare case.

METHODS

A review of imaging methods - X-ray and CT-scan were performed.

RESULTS

The subject is an one-year-old patient prematurely born in gestational age of 31 weeks from an unfollowed pathological pregnancy. Because of the insufficient spontaneous breathing soon after birth, it was necessary to be put on mechanical ventilation and insufflation of surfactant, as it suffered from a Respiratory Distress Syndrome. The CT-scan results displayed multiple cystic lesions in the left lung with well-defined and thickened walls and also moved mediastinal structures to the right. Therefore, the chest radiography reveals data of one more congenital condition – a right-sided aortic arch.

CONCLUSION

CCAM is an anomaly that may remain undiagnosed for a long time, but it is considered to be the cause of recurrent infections. The CT-scan has a number of roles in the management of this disease - determining the accurate localization, size and extent of cystic lesions, facilitating the differential diagnosis and further treatment as well as the patient‘s survival.

KEY WORDS: CT-scan, cystic lesions.

INDEX

PARTNER CONFERENCES:

1. International Biomedical Congress Sofia (IBC), Bulgaria

   https://www.ibc-sofia.org/

2. Brazilian International Congress of Medical Students (BRAINCOMS), Sao Paulo, Brazil

   https://doity.com.br/ix-braincoms-brazilian-international-congress-of-medical-students

3. Antwerp Medical Students‘ Congress (AMSC), Antwerp, Belgium

   https://www.amsc.be/

4. Bukovinian International Medical Congress (BIMCO), Chernivtsi, Ukraine

   https://bim.co.ua/

5. International Medical Students’ Congress of Bucharest (IMSCB), Bucharest, Romania

   https://imscbucharest.com/