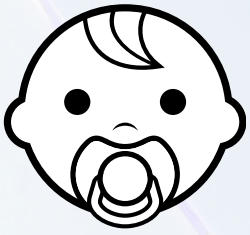
EPISIRUS SCIENTIFICA®

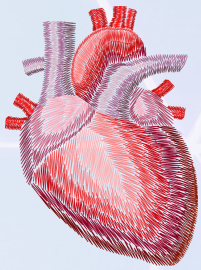
A Path For Discovery

2020 EDITION

Proceedings of

2020 World Heart and Cardiothoracic Surgery Conference
2020 World Critical Care and Anesthesiology Conference
2020 World Neuroscience, Psychiatry & Dementia Conference
2020 World Pediatrics Conference





VIRTUAL

MARCH 19–20, 2021

Contents

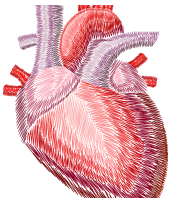
EPISIRUS SCIENTIFICA®

A Path For Discovery

OUR 2021 ASIAN EDITION CONFERENCES

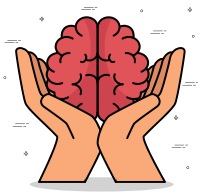
2021 World Pediatrics Conference (2021WPC), November 19-20, 2021, Bangkok, Thailand

2021 World Heart & Cardiothoracic Surgery Conference (2021WHCS), November 19-20, 2021, Bangkok, Thailand



2021 World Neuroscience & Psychology Conference (2021WNPC), November 19-20, 2021, Bangkok, Thailand

2021 World Dementia & Mental Health Conference (2021WDMH), November 19-20, 2021, Bangkok, Thailand



2021 World Critical Care & Anesthesiology Conference (2021WCAC), November 19-20, 2021, Bangkok, Thailand

2021 World Cosmetic & Dermatology Conference (2021WCDC), November 19-20, 2021, Bangkok, Thailand

2021 World Endocrine & Obesity Conference (2021WEOC), November 19-20, 2021, Bangkok, Thailand

From the desk of our Organizing Commiittee Members

JOINT MEETING ON
2020WHCS | 2020 WCAC |
2020WNPC | 2020WDMH |
2020WPC |
MARCH 19-20, 2021

www.episirus.org

DR. TERRANCE KHASTGIR, MD

Integris Baptist Medical Center, Oklahoma City, USA

Dear Friends and Colleagues,

Episirus Scientifica is hosting the 2020 World Heart Cardiothoracic Surgery Conference, 2020 World Critical Care and Anesthesiology Conference, 2020 World Neuroscience and Dementia Conference and 2020 World Pediatrics Conference conference virtually. Conference dates are March 19-20, 2021.
I have participated in the two previous conferences in Bangkok (2018) and Singapore (2019). Both conferences were very well organized, and presentations were of the highest standards. The international faculty and participants had great opportunities to make the sessions interactive and terchange ideas on very important topics and challenges that we face worldwide in cardiology and cardiothoracic surgery fields.

As an organizing member of the conference, my commitment to participants will be:

- **To have discussions on latest and innovative topics,**
- **Tremendous opportunity for networking, and**
- **A fun-filled two days in the backdrop of a beautiful city – Bangkok.**

I look forward to seeing you as delegates, and invite you to take this opportunity to showcase your presentations and research.

Sincerely,
Dr. Terrance Khastgir
Organizing Committee Member
Congress 2020 WHCS | ESE

DR. AHMED FOUAD

Ain Shams University, Cairo, Egypt

Dear Friends and Colleagues,

It has been a pleasure for me to be an Organizing Committee Member since 2018 and after the major success in the last 2 years, the 2020 World Heart and Cardiothoracic Surgery Conference (2020WHCS) will certainly be better for its upcoming 3rd Edition to be held virtually.
The 2020WHCS will be held from March 19-20, 2021 virtually and will be organized by the Episirus Scientifica.
Many participants from all over the world will gather to share knowledge, experience and new techniques in the field of cardiology and cardiothoracic surgery.
2020 WHCS will provide excellent opportunities for experts, consultants, physicians, surgeons and medical students to present the latest research developments through interactive sessions, poster presentation, workshops and case reports.

Moreover, there will be a chance to follow the latest industry innovations and new research updates.Looking forward to seeing you all inBangkok to enjoy the scientific program and at the same time explore the Asian taste of the beautiful Bangkok.

Sincerely yours,
Dr. Ahmed Fouad
Organizing Committee Members
Congress 2020WHCS | ESE

Joint Meeting on

2020 World Heart and Cardiothoracic Surgery Conference
2020 World Critical Care and Anesthesiology Conference, 2020 World Pediatrics Conference
2020 World Neuroscience, Psychiatry & Dementia Conference

VIRTUAL CONFERENCE

SCIENTIFIC PROGRAM

MARCH 19-20, 2021

SCIENTIFIC PROGRAM

DAY 1, MARCH 19, 2021
TIMING - 10:00 GMT +05:30

OPENING CEREMONY **10:00-10:10**

KEYNOTE FORUM

INTRODUCTION **10:10-10:30**

Title: The role of medical professional societies in pandemic response **10:30-10:50**

Lewis J Kaplan, Professor, Perelman School of Medicine, University of Pennsylvania, Division of Trauma, Surgical Critical Care and Emergency Surgery, USA, Immediate Past-President of Society of Critical Care Medicine (SCCM)

Title: Less is more, particularly in the ICU **10:50-11:10**

Greg Martin, Professor, Pulmonary and Critical Care Medicine, Emory University, Atlanta, USA, President, Society of Critical Care Medicine (SCCM)

NETWORKING BREAK - 11:10-11:30

Session 1 : Acute CardioVascular Care | Cardiothoracic and Cardiovascular Surgery | Critical Care and Emergency Medicine | Trauma | Pain and Regional Anesthesia | ECMO | Echocardiography | Cardiac Anesthesia | Pediatric Cardiology | Hypertension | Minimally Invasive Surgery | Cardiac and Neuro Anesthesia | Oncology | Anesthetic and ICU Management and Practice | Stroke | Coronavirus Disease 2019 (COVID-19): Critical Care | Cardiology | Neurocritical Care

Session Chair: Ahmed Fouad, Cardiac Surgeon, Ain Shams University and Head of Cardiac Surgery Department, Elaraby Hospital, Egypt

Session Co-Chair: Nandkishor Agrawal, Professor, Department of Anesthesiology, AIIMS, Raipur, India

Title: Pleural effusion post coronary artery bypass surgery: Associations and complications

11:30-11:45

Michael Williams, Department of Cardiothoracic Surgery, Royal Prince Alfred Hospital, Sydney, Australia

Title: Sutureless valve and rapid deployment valves: A systematic review and meta-analysis of comparative studies

11:45-12:00

Michael Williams, Department of Cardiothoracic Surgery, Royal Prince Alfred Hospital, Sydney, Australia

Title: Can you hear that click? Patients' experiences post mechanical valve replacement

12:00-12:15

Sally Harrison, Cardiothoracic Surgery Registrar, Dunedin Public Hospital, New Zealand

Title: EVALI reaches Australian shores. First documented case of EVALI in Australia

12:15-12:30

Abdullah Shehzad, Bussleton Health Campus, Australia

Title: A decade of experience with ruptured abdominal aortic aneurysms: What have we learned?

12:30-12:45

Anoosha Aslam, Department of Vascular Surgery, Royal North Shore Hospital, Australia

Ttile: Determining the fate of the distal aorta after type A aortic dissection: A meta analysis

12:30-12:45

Anoosha Aslam, Department of Vascular Surgery, Royal North Shore Hospital, Australia

Title: Tuberculous popliteal aneurysm: A rare case report

12:45-13:00

Anoosha Aslam, Department of Vascular Surgery, Royal North Shore Hospital, Australia

Title: Spontaneous retroperitoneal haematoma: An interesting case report

12:45-13:00

Anoosha Aslam, Department of Vascular Surgery, Royal North Shore Hospital, Australia

Title: Spontaneous occlusion and recanalisation of the renal artery

12:45-13:00

Anoosha Aslam, Department of Vascular Surgery, Royal North Shore Hospital, Australia

Title: Role of PiCCO in patients with acute respiratory distress

13:00-13:15

Le Duc Nhan, Vice-president of Vietnam Association of Critical Care Medicine, Director, Danang Hospital, Vietnam

Title: Pain and regional anesthesia

13:15-13:30

V R Udhayanan, Chief Civil Surgeon, Department of Anesthesia, Thanjavur Medical College, India

Title: Is tocotrienol, an isomer of Vitamin-E derived from Palm-Oil, able to reduce atrial fibrillation after coronary artery bypass grafting surgery?

13:30-13:45

Ahmad Farouk Musa, Academician and Cardiothoracic Surgeon at Monash University, Malaysia

Title: Critical care issue in oncology **13:45-14:00**

Karan Chanchlani, MD, Clinical and Radiation Oncologist, India

QUESTIONS & ANSWERS 14:00-14:30

LUNCH BREAK 14:30-15:00

Keynote Speech

Title: Learning spiritual behaviors as a means to reverse harmful epigenetic changes resulting from domestic violence **15:00-15:30**

Maysar Sarieddine, The Inner Space, Lebanon

Session 2 : Pediatrics | Neuroscience and Neurology| Neonatology and Pediatric Intensive Care| Neurocritical care | Covid-19 in Children | Child Nutrition | Pediatric Neurology | Adolescent Medicine | Psychiatry |Neurological Disorders | Dementia

Session Chair: Maysar Sarieddine, The Inner Space, Lebanon

Session Co-Chair: Kailash Chander Aggarwal, Prof. and HOD Pediatrics, Santosh Medical College and Hospital (a deemed University), Ghaziabad, UP, Delhi NCR

Title: Early extubation in pediatric cardiac surgery patients **15:30-15:45**

Abdul Quadeer, Saudi Arabia

Title: Current status of sickling among children in India **15:45-16:00**

Daisy Abraham, Professor, P G College of Nursing, India

Title: Venous thromboembolism (VTE) in the neurocritical care setting **16:00-16:15**

Sanjay Mahajan, Senior Consultant Physician and Intensivist. Kailash Hospital and Research Centre, Noida, Delhi NCR, INDIA

Title: Management of childhood functional constipation **16:15-16:30**

Arun Jain, Senior Consultant Pediatrician & Neonatologist, Director, Dr Arun Child Hospital, Agra, India

Title: Oxygen saturation of otherwise normal new bornto corona (COVID19) positive mother in first 10 minutes breathingnormally **16:30-16:45**

Kailash Chander Aggarwal, Prof. and HOD Pediatrics, Santosh Medical College and Hospital (a deemed University), Ghaziabad, UP, Delhi NCR

Title: Person living with dementia in existing housing system and requirements of modern time **16:45-17:00**

Osman Kučuk, Center for Dementia, Sarajevo, Bosnia and Herzegovina

QUESTIONS & ANSWERS 17:00-17:10

NETWORKING BREAK 17:10-17:20

Title: Infant immunity and optimizing the vaccine schedule **17:20-18:00**

Taylor Bean, Naturopathic Doctor, Canada

Session 3 : Cardiovascular Medicine|Cardiology| ECMO | Echocardiography | Thoracic Surgery and Cardiac Anesthesia | Pediatric Cardiology | Minimally Invasive Surgery | Stroke |Atherosclerosis | Cardiac Imaging | Stress

Session Chair: Gary L Murray, Cardiologist in Germantown, Tennessee, USA

Title: Benefit of early atrial fibrillation ablation in the setting of sick sinus syndrome **18:00-18:15**

Saima Karim, Associate Program Director for Electrophysiology FellowshipAssistant Professor of Medicine, Case Western Reserve University, USA

Title: Cardiac implantable device extraction: Overview and update **18:15-18:30**

Saima Karim, Associate Program Director for Electrophysiology FellowshipAssistant Professor of Medicine, Case Western Reserve University, USA

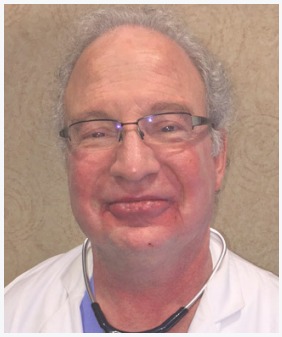
Title: Emerging targets in coronary artery disease: lncRNA-mediated control of vascular senescence and atherosclerosis **18:30-18:45**

Mark W. Feinberg, Cardiovascular medicine specialist at Brigham and Women's Hospital (BWH), Associate professor of medicine at Harvard Medical School (HMS), An affiliated faculty member at the Harvard Stem Cell Institute, Boston, USA

Title: Reduction in false positive stress echocardiograms with ultrasound enhancing contrast agent **18:45-19:00**

Andrew Victor, Whitby Cardiovascular Institute, Canada

Keynote Speech



Title: Sudden cardiac death in the general population: Can we prevent a majority ? **19:00-19:30**

Gary L Murray, Cardiologist in Germantown, Tennessee, USA

QUESTIONS & ANSWERS 19:30-20:00

PANEL DISCUSSIONS

END OF DAY 1

DAY 2, MARCH 20, 2021
TIMING - 10:30 GMT +05:30

KEYNOTE FORUM

Title: Pandemic disordered healthcare **10:30-10:50**

Heatherlee Bailey, Emergency Medicine Intensivist, Durham VA Medical Center, USA, Past-President, Society of Critical Care Medicine (SCCM)

Title: Hypertension risk from iron brake particulate matter **10:50-11:05**

William J. Rowe, MD, FBIS, FACN, Former Assistant Clinical Professor of Medicine, Medical University of Ohio at Toledo, USA

NETWORKING BREAK 11:05-11:15

Session 4 : Critical Care and Emergency Medicine | Hypertension & Stroke | Neuro Anesthesia | Nursing | Cardiac Anesthesiology | Critical Care and Anesthetic Challenges | Trauma & Anaesthesiology |Pain Medicine| Cardio-Thoracic Surgery and Cardiac Emergency | Cardiovascular Diseases | Heart Failure | Neurobiology | Intensive Care | Pediatrics Critical Care | Dementia | Neurology | Covid 19- Critical Care | Neonatal Care | Neurodegenerative Disease

Session Chair: Nandkishor Agrawal, Professor, AIIMS, Raipur, India

Session Co-Chair: Vaishali Waindeskar, Professor and Head, Department of Anesthesiology and Critical Care, AIIMS Bhopal, India

Title: Ascending aorta and arch surgery in the octogenarian and nonagenarian: Advanced age is not a contraindication **11:15-11:30**

Michael Williams, Department of Cardiothoracic Surgery, Royal Prince Alfred Hospital, Sydney, Australia

Title: Systematic review and meta-analysis of homograft versus valve and valved conduits for extensive aortic root endocarditis **11:30-11:45**

Michael Williams, Department of Cardiothoracic Surgery, Royal Prince Alfred Hospital, Sydney, Australia

Title: Expected partial pressure of oxygen (EPao2) with respect to different fraction of inspired oxygen Fio2 **11:45-12:00**

Nandkishor Agrawal, Professor, Department of Anesthesiology, AIIMS, Raipur, India

Title: Postoperative pain in children- Assessment and management **12:00-12:15**

Vaishali Waindeskar, Professor and Head, Department of Anesthesiology and Critical Care, AIIMS Bhopal, India

Title: Respiratory management process adjustments to care given to critically-ill adult covid19 patients admitted to the intensive care unit tertiary healthcare facility in the Philippines **12:15-12:30**

Aaron Mark R. Hernandez, Head, Intensive Care Program, Program Director, Adult Critical Care Fellowship Training Program, Asian Hospital and Medical Center, Philippines

Title: Post-infectious dengue fever complicating as Guillain-Barré syndrome: A case report **12:30-12:45**

Uzzwal Kumar Mallick, Department of Critical Care Medicine, National Institute of Neurosciences & Hospital, Dhaka

Title: Anesthesia for a high risk case **12:45-13:00**

Balasaheb Bande, Anesthesiologist, K. E. M. Hospital, India

Title: Comparison of microbial profile and resistance pattern of early and late onset ventilator associated pneumonia in a tertiary care ICU of Bangladesh **13:00-13:15**

Uzzwal Kumar Mallick, Department of Critical Care Medicine, National Institute of Neurosciences & Hospital, Dhaka

Title: Modulation of neural cell proliferation in the brain of adult zebrafish after injury and paraquat exposure **13:15-13:30**

Surendra Kumar Anand, Laboratory of Cellular and Molecular Neurobiology, School of Life Sciences, Jawaharlal Nehru University, India

Title: Brain ecology and PMLCP **13:30-13:45**

Jian Zhong Zha, Director of Wuhan Keli Institute of Women's Studies, China

QUESTIONS & ANSWERS 13:45-14:00

LUNCH BREAK 14:00-14:30

Title: Experience in managing patients with coronavirus infection at mass admissions **14:30-14:45**

Gulchekhra Khamraeva, Department of Anesthesiology and Intensive Care in Pediatrics, Center for the development of professional skills of medical staff under the Ministry of Health of the RUz, Uzbekistan

Title: Effectiveness of nursing care bundle on prevention of ventilator associated pneumonia among mechanically ventilated patients admitted in Dhanvantri Critical Care Center, Erode, Tamil Nadu **14:45-15:00**

P. Padmavathi, Principal, Dhanvantri College of Nursing, India

Title: Critical care management of COVID-19 patients- Single center experience in Nepal **15:00-15:15**

Rajeeb Kumar Deo, Shree Birendra Hospital, Nepal

Title: Epstein barr infection leading to acute adrenal insufficiency, viral meningitis and hemolysis-A case report

15:15-15:30

Simant Kumar Jha, Department of Critical Care Medicine, PSRI Delhi, India

Title: Evaluation of different treatment modules for respiratory distress syndrome in preterm neonates

15:30-15:45

Rajeev Kumar Mittal, Pediatrician (Scholar), Department of Pediatrics, Subharti Medical College, India

Title: Pregnancy induced paralysis: And the mystery continues!

15:45-16:00

Rafia Khan, Department of Anaesthesiology and Critical Care, ESI-PGIMSR & Hospital, India

Title: Septic shock in pregnancy: Current guidelines

16:00-16:15

Preeti Goyal Varshney, Lady Hardinge Medical College, India

Title: Nerve regeneration therapy and its application in the field of oral and maxillofacial surgery

16:15-16:45

Pram Kumar Subramaniam, Oral and Maxillofacial Surgeon, Faculty of Dentistry & Sultan Ahmad Shah Medical Centre, International Islamic University Malaysia, Malaysia

Title: Covid-19 impact on chronic pain patient and its solution

16:45-17:00

Endang Mutiawati, Pain and Headache Consultant, Department of Neurology Faculty of Medicine Syiah Kuala University, RSUD Dr. Zainoel Abidin, Indonesia

Title: Recurrence of mitral paravalvular leak. It is transcatheter closure always the best option?

17:00-17:15

Carmen Maria Moldovan, Department of Cardiology, Slagelse University Hospital, Denmark

Title: Strategies on cardiac parameters among patients with hypotension

17:15-17:30

Ms. Janani Eswaran, Incharge of Clinical Critical Care, Dhanvantri Multi Speciality Hospitals, Erode, India

QUESTIONS & ANSWERS 17:30-18:00

NETWORKING BREAK 18:00-18:15

Title: Unrestricted and unknown frontiers of regenerative medicine

18:15-18:45

Alicja Steiner, Anesthesiology, New York University, USA

Title: Extremity Osterosarcoma (O.S.): Evolution from primary amputation to mainly Limb Salvage Surgery (LSS)

18:45-19:00

Bhaskar Rao, Department of Surgery, St. Jude Children's Research Hospital, USA

Title: Caregiving of a special needs individual who developed early onset dementia

19:00-19:15

Tahiera Monique Brown, CEO, Darkness To Light Films, USA

Title: Delirium – An intriguing and far-reaching problem in the perioperative and critical care setting

19:15-19:30

Matthew Scott Vandiver, Assistant Professor, University of California Los Angeles, USA

Title: Use of alkaline phosphatase in critically-ill patients

19:30-19:45

Zohra Razaq Malik, Department of Internal Medicine, Saint John's Episcopal Hospital, USA

Title: The center of hope **19:45-20:00**

Lisa kKesecker , USA

QUESTIONS & ANSWERS 20:00-20:15

POSTER PRESENTATIONS 20:15-20:45

EP 001 **Title: Massive thoracic aortic aneurysm causing extrinsic coronary artery bypass graft compression: A case report on a rare cause for ACS**

Samuel Hawthorne, Department of Vascular Surgery, Royal Melbourne Hospital, Australia

EP 002 **Title: Slow low-efficiency daily dialysis (SLEDD) and intermittent haemodialysis (IHD) as an alternative to continuous renal replacement therapy (CRRT) during COVID-19 pandemic**

Marilyn Boampomaa and Harsh Nimaiyar, Lister Hospital, United Kingdom

EP 003 **Title: Meningioma in male to female transgender using hormone replacement therapy**

Grace Elizabeth Romorani, General Practitioner, North Sumatera University, Medan, Indonesia

EP 004 **Title: The treatment Alzheimer's Disease by liposomal drug**

Nina Ivanova, SE "Institute of Dermatology and Venerology of Medical Science", Ukraine

EP 005 **Title: Mania and psychosis induced by the pre-medication regimen for ocrelizumab for treatment of primary progressive multiple sclerosis, a cautionary tale to C-L psychiatrists and neurologists**

Gregory Malzberg, Department of Psychiatry, Mt. Sinai Beth Israel, USA

EP 006 **Title: Mental health of addicts before and after rehabilitation**

Mansi Saxena, Bansal Hospital, India
Yash Badal, Recovery Coach, Lifestyle & Fitness Trainer, India

EP 007 **Title: Comparative evaluation of ease of orotracheal intubation using non-handle mounted video laryngoscope versus handle mounted video laryngoscope in patients undergoing elective surgeries**

Rafia Khan, Department of Anaesthesiology and Critical Care, ESI-PGIMSR & Hospital, India

EP 008 **Title: Interaction of heart rate variability and indicators of the hemostasis system after coronavirus infection (COVID-19)**

Gulchekhra Khamraeva, Department of Anesthesiology and Intensive Care in Pediatrics, Center for the development of professional skills of medical staff under the Ministry of Health of the RUz, Uzbekistan

EP 009 **Title: The prognosis of outcomes in patients with traumatic brain injury (TBI) in the acute period**

Gulchekhra Khamraeva, Department of Anesthesiology and Intensive Care in Pediatrics, Center for the development of professional skills of medical staff under the Ministry of Health of the RUz, Uzbekistan

EP 010 **Title: Comparison of knowledge, Attitude, Social and Financial burden, and Mental Health Disorders of COVID-19 Pandemic between General Population and Health Care Workers in Egypt**

Mohamed Khashbah, Department of Economics, Neuroeconomics and finance. Claremont Graduate University, USA

PANEL DISCUSSIONS

OUR COLLABORATORS

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OUR EXHIBITOR

CeGaT GmbH, founded in Tübingen, Germany, in 2009, is a world leader in gene analyses for a wide range of medical, research, and pharmaceutical applications.

The company combines the latest technology with its many years of medical expertise – dedicated to identifying the genetic cause of disease and supporting patient care. For research and the pharmaceutical industry, CeGaT offers a broad portfolio of sequencing services and tumor analyses. CeGaT generates the data basis for clinical studies and medical innovations and drives science forward with own findings.

CeGaT is a pioneer in the field of genetic diagnostics: The company was the first to use next-generation sequencing for human diagnostics. CeGaT developed gene panels, which made it possible to simultaneously examine all genes that are relevant for a specific disease - resulting in significant time and cost savings. Since then, CeGaT's interdisciplinary team has been updating the more than 250 disease-specific panels. CeGaT continuously expands its portfolio, always based on the newest literature and in close cooperation with experts from many medical fields. The company's latest innovation incorporates the unmatched expertise gained: CeGaT Exome Xtra. It combines all the advantages of whole exome sequencing (WES) and whole genome sequencing (WGS) while outbalancing the methods' disadvantages. It is the most powerful diagnostic tool to realize maximum diagnostic yield and the approach of choice to detect the cause of disease in patients with complex, unspecific symptoms.

The owner-managed company stands for independence, an extensive, personal customer service, and the highest quality. All project steps are carried out in-house and under scientific supervision to maintain the best results. CeGaT is accredited according to CAP/CLIA and DIN EN ISO 15189, hence meeting high international laboratory standards.

DAY 1
KEYNOTE FORUM

Keynote Abstracts

Title: The role of medical professional societies in pandemic response

Lewis J Kaplan, MD, FACS, FCCP, FCCM[1,2,3]

[1]*Society of Critical Care Medicine President, 2020-2021*

[2]*Professor of Surgery, Perelman School of Medicine, University of Pennsylvania, Division of Trauma, Surgical Critical Care and Emergency Surgery, 51 N 39 th Street; Medical Office Building 1 st Floor; Suite 120 Philadelphia, PA 19104*

[3] *Corporal Michael J Crescenz VA Medical Center, Section Chief, Surgical Critical Care, Director, Surgical ICU, 3900 Woodland Avenue, Philadelphia, PA 19104*

The current pandemic underscores that we are indeed members of a global medical community. As such, we each belong to medical professional organizations some of which are specialty focused while others cross specialties. Critical care organizations generally represent the latter. As government agencies work to address supply, testing, and vaccination issues, medical professional organizations moved to support members and non-members alike to enhance bedside care. The ability of medical professional organizations to be nimble and reprioritize daily operations provided a foundation upon which instrumental changes could be made in key domains including: website layout and functionality, content curation, content generation, official organ (journal) layout and content, and novel offering generation. Those novel offerings included blog posts, Social Media (SoMe) interfaces, as well as webinars and conference with new partners. Importantly, many resources that were previously fenced behind a pay wall were converted to free and open access education to support intensive care professionals as well as non ICU clinicians during pandemic care. In this way, medical professional organizations served as primary educators throughout the pandemic of core knowledge and novel approaches. Additionally, new data generation occurred rapidly through member surveys and paved the way for global virus registry development and deployment. As different clinical sites became overwhelmed with patient surge, medical professional organizations leveraged their members to help import volunteers to aid colleagues. All of those activities opened two new spaces for many organizations – access to the highest level of government in an advisory capacity - and robust interfaces with a wide variety of media. Many key leaders were features in the lay press, digital media and world news. As a result, critical care medicine became highlighted as a key element of hospital care for the public as a site of frontline healthcare.

Biography:

Dr. Kaplan is a critical care surgeon at the University of Pennsylvania in the Division of Trauma, Surgical Critical Care and Emergency Surgery and the Section Chief of Surgical Critical Care at PENN's affiliated VA Medical Center since 2013. Education including a BA (Franklin and Marshall College; Biology; 1984) and an MD (Rutgers Medical School; 1988) was followed by Surgical residency (Medical College of PA, MCP; 1988-1995) and Surgical Critical Care Fellowship (CCF; University of Pittsburgh; 1996-1997). He has directed ICUs and CCFs in three systems (MCP, Yale, PENN). At Yale (2002-2013) he established the first Emergency General Surgery service, as well as Tactical Emergency Medical Services for a regional SWAT team with which he deployed. Dr. Kaplan serves in professional society leadership roles and is the current President of the Society of Critical Care Medicine. He sits on multiple editorial boards (Journal of Trauma and Acute Care Surgery, Critical Care Medicine, Surgical Infections).

Title: The role of medical professional societies in pandemic response

Greg Martin [1,2,3]
[1]*Professor of Pulmonary and Critical Care Medicine at Emory University in Atlanta*
[2]*Research Director for the Emory Critical Care Center, the Chair of Critical Care at*
[3]*Grady Memorial Hospital, Atlanta*
President for the Society of Critical Care Medicine.

Since the dawn of critical care there have been debates about what treatments and therapies are most effective, and most appropriate, for each individual patient. Value in healthcare is defined as quality divided by cost, and ethical principles for healthcare teaches us that avoiding harm, producing a net benefit to the patient and equally distributing resources for patient care may affect both quality and cost of care. We will discuss both the conceptual and the empirical evidence why less intensive management is often superior to more intensive approaches to critical care delivery. We will also discuss circumstances when clinical evidence suggests more intensive management is appropriate. Finally, we will discuss the principles of the Choosing Wisely campaign, including clinical approaches to delivering high quality critical care using the “Less is More” paradigm, and implementing the Choosing Wisely campaign recommendations.

Biography:

Dr. Greg Martin is Professor of Pulmonary and Critical Care Medicine at Emory University in Atlanta and conducts clinical research in critically ill patients, particularly those with sepsis, ARDS and now COVID-19. Dr. Martin also serves as the Research Director for the Emory Critical Care Center, the Chair of Critical Care at Grady Memorial Hospital, and he will serve in 2021 as President for the Society of Critical Care Medicine.

Title: Learning spiritual behaviors as a means to reverse harmful epigenetic changes resulting from domestic violence

Maysar Sarieddine [1,2,3]
[1]*The founder of The Inner Space (www.theinnerspace.me)*
[2] *Professor of Psychology at The Lebanese American University (LAU, Lebanon)*
[3] *Professor of Psychology at Phoenecia University (PU, Lebanon)*

Excessive stress can epigenetically alter an individual’s DNA and affect mental health. For instance, women who have been exposed to domestic violence have been found to have psychopathological alterations in their behaviors and in their hypothalamus-pituitary-adrenal axis functioning. However, these changes are reversible, because people can change their genetic makeup by changing their thoughts and beliefs. This provides an opportunity for domestic violence survivors to acquire behavioral and cognitive practices that support healthier epigenetic modifications in the expression of genes. The use of strategies centered on spirituality has been proposed as a skill that can enhance resilience, which is the ability to adapt to stress and adversities. Similar to the epigenetic mechanisms involved in excessive stress, resilience can also alter gene expressions, which can support healthier neuropsychological functioning. For victims of domestic violence, enhancing their spirituality through prayers, meditation, or cognitive reframing can lead to neuropsychological changes that can offset the negative psychopathological alterations that occur during excessive stress. A study that frames spirituality as a buffer for stress caused by domestic violence could be significant in further illuminating the power of thoughts and beliefs in influencing our neurological functioning.

Keywords :
Domestic Violence, Epigenetic Changes, Neurological Functioning, Spirituality

Biography:

Maysar Sarieddine is an architect, a businessman, a philosopher, and a psychologist. He completed his doctorate in Depth Psychology with an emphasis on Community, Liberation, and Ecopsychology at Pacifica Graduate Institute, California. His dissertation topic was an attempt to understand the dynamics of violence in Lebanon and the Middle East, specifically domestic violence against women, and to provide possible solutions that could be integrated in a more holistic way in society. He is the founder of The Inner Space (www.theinnerspace.me), and a Professor of Psychology at both The Lebanese American University (LAU, Lebanon) and Phoenecia University (PU, Lebanon). Maysar Sarieddine is interested in the Pedagogy of the Oppressed and in applying insights in a wide variety of organizational development and transformation; His motto in life is, “EDUCATING FOR THE PURPOSE OF LIBERATION.

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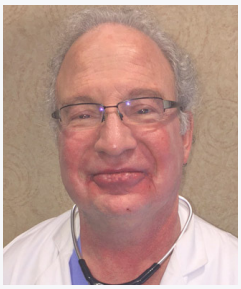
He is currently completing his Doctorate in Integrative Medicine and a PhD in Alternative medicine, to gain more depth in the field of Mental Health. He is interested in the Pedagogy of the Oppressed and in applying insights in a wide variety of organizational development and transformation; his motto in life is EDUCATING FOR THE PURPOSE OF LIBERATION.



Title: Sudden cardiac death in the general population: Can we prevent a majority?

Gary L Murray
Cardiologist in Germantown, Tennessee, USA

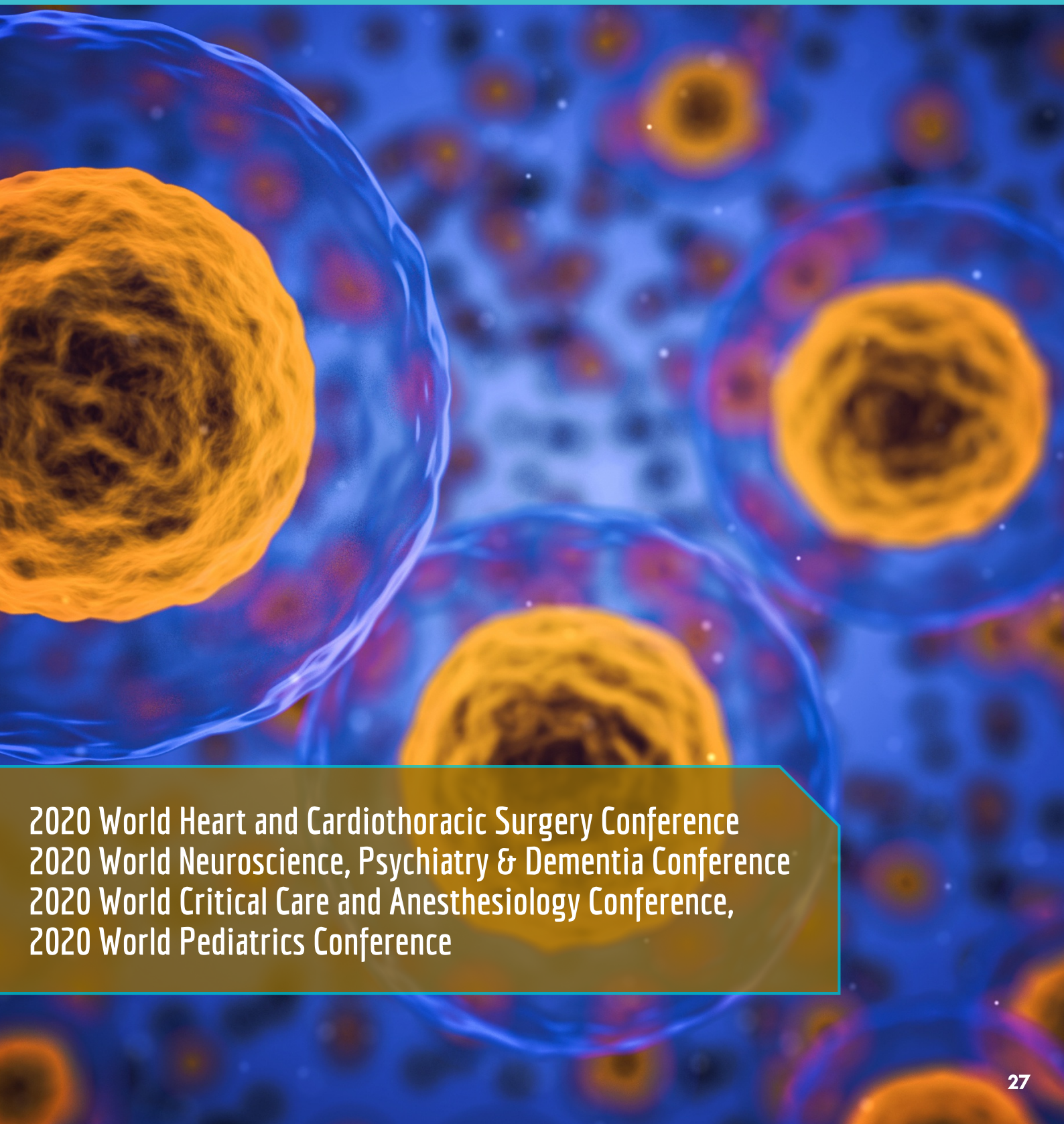
Fifteen-20% of deaths worldwide are sudden (within 1 hour of symptom onset). Our ability to predict and prevent sudden cardiac death (SCD) in the general population, in which 85% have no known organic heart disease (OHD) or stable OHD with left ventricular ejection fraction (LVEF) > 40%, is limited to poor. The purpose of this commentary is to suggest a new approach to SCD in this population. Oxidative stress is a common thread in development and progression of the major cardiac diseases associated with SCD. It has a profound adverse effect upon Heart Rate Variability (HRV), Sympathetic tone (S), and parasympathetic tone (P). Recently, developed technology finally has allowed accurate measures of S and P. Using this technique, the general population can be screened, those at risk for SCD can be identified with a higher degree of success, and preventative measures instituted. For example, in 133 geriatric type 2 diabetics (DM II) with S and/or P abnormalities upon screening, the potent, natural antioxidant (r)alpha lipoic acid (ALA) reduced SCD (relative risk reduction [RRR]) 43%(p=0.0076), mean follow-up (f/u) 6.31 yrs. DM patients have high glycemic oxidative stress. Addressing oxidative-stress S and P abnormalities can reduce SCD.S and P screening of the general population will be discussed.

Biography:

He graduated from Phi Beta Kappa Rhodes College and attended Tulane School of Medicine in the year 1974. He is board certified in Internal Medicine and Cardiology and did his postgraduate training from UTCHS, Memphis and co- created the Schaad-Murray RNA exercise test used world-wide for diagnosing CAD. He is the 1st author of several articles, all written while in private practice, regarding my self-funded research. He received the Meritorious Service Award while Chief of Medicine Nellis AFB Hospital. He Co-Chair the Membership Committee International College of Angiology, and he is the editorial boards of several publications.

Scientific Sessions & Abstracts

Day 1, March 19, 2021 , 11:30 GMT +05:30



2020 World Heart and Cardiothoracic Surgery Conference
2020 World Neuroscience, Psychiatry & Dementia Conference
2020 World Critical Care and Anesthesiology Conference,
2020 World Pediatrics Conference

Title: Pleural effusion post coronary artery bypass surgery: Associations and complications

Michael Williams
Department of Cardiothoracic Surgery, Royal Prince Alfred Hospital, Sydney, Australia

Title: Sutureless valve and rapid deployment valves: A systematic review and meta- analysis of comparative studies

Michael Williams
Department of Cardiothoracic Surgery, Royal Prince Alfred Hospital, Sydney, Australia

Title: Can you hear that click? Patients' experiences post mechanical valve replacement

Sally Harrison
Department of Cardiothoracic Surgery, Dunedin Public Hospital, New Zealand

Title: EVALI reaches Australian shores. First documented case of EVALI in Australia

Abdullah Shehzad
Perioperative Resident, Bussleton District Hospital, West Busselton 6280, Australia

Title: A decade of experience with ruptured abdominal aortic aneurysms: What have we learned?

Anoosha Aslam
Department of Vascular Surgery, Royal North Shore Hospital, Australia

Title: Determining the fate of the distal aorta after Type A aortic dissection: A meta analysis

Anoosha Aslam
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Title: Tuberculous popliteal aneurysm: A rare case report

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Title: Role of PiCCO in patients with acute respiratory distress

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Title: Pain and regional anesthesia

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Title: Management of childhood functional Constipation

Arun Jain
Senior Consultant Pediatrician & Neonatologist, Director, Dr Arun Child Hospital, Agra , India

Title: Person living with dementia in existing housing system and requirements of modern time

Osman Kučuk
Center for Dementia; Sarajevo; Bosnia and Herzegovina

Title: Benefit of early atrial fibrillation ablation in the setting of sick sinus syndrome

Saima Karim
Associate Program Director for Electrophysiology Fellowship, Assistant Professor of Medicine, Case Western Reserve University, USA

Title: Cardiac implantable device extraction: Overview and update

Saima Karim
Associate Program Director for Electrophysiology Fellowship, Assistant Professor of Medicine, Case Western Reserve University, USA

Title: Emerging targets in coronary artery disease: lncRNA-mediated control of vascular senescence and atherosclerosis

Mark W. Feinberg, MD
Cardiovascular medicine specialist at Brigham and Women's Hospital (BWH), Associate professor of medicine at Harvard Medical School (HMS), An affiliated faculty member at the Harvard Stem Cell Institute, Boston, USA

Title: Reduction in false positive stress echocardiograms with ultrasound enhancing contrast agent

Andrew Victor MD
Whitby Cardiovascular Institute, Canada

Session Abstracts:

Pleural effusion post coronary artery bypass surgery: Associations and complications

Michael Williams, John Brookes, Tristan Yan, Paul Bannon
Department of Cardiothoracic Surgery, Royal Prince Alfred Hospital, Sydney, Australia

Introduction: One of the most frequent complications of coronary artery bypass grafting (CABG) is pleural effusion. Limited previous studies have found post-CABG pleural effusion to be associated with increased length-of-stay and greater morbidity post-CABG. Despite this the associations of this common complication are poorly described. This study sought to identify modifiable risk factors for effusion post-CABG.

Methods: A retrospective cohort study of prospectively collected data assessed patients who underwent CABG over two-years. Data was collected for risk factors and sequelae related to pleural effusion requiring drainage.

Results: 409 patients were included. Average age was 64.9+/-10.2 years, 330 (80.7%) were male. 59 (14.4%) patients underwent drainage of pleural effusion post-CABG. Effusions were drained on average 9.9+/-8.4 days post-CABG. Earlier removal of drain tubes and removal near time of extubation were associated with development of pleural effusion. Post-CABG pleural effusion was associated with post-operative renal impairment (p<0.01) and pericardial effusion (p<0.01). Patients with pleural effusion were more likely to require readmission to ICU (p<0.01), reintubation (p=0.03) and readmission to hospital (p=0.03).
Conclusions: Pleural effusion is a common complication of cardiac surgery and is associated with significant morbidity and resource utilization. This study identifies several associated complications that should be considered in the presence of pleural effusion. Modifiable associated factors in the management of drains that may contribute to accumulation of pleural effusion include: early removal of chest drains, higher outputs and removal during or close to mechanical ventilation. Further research is required to assess how adjusting these modifiable factors can decrease rates of effusion post-operatively.

Biography

Michael is an unaccredited Cardiothoracic surgical registrar in Sydney Australia. He has completed a Master of Surgery (Cardiothoracic surgery) at University of Sydney and is heavily involved in clinical research. He is also a section Editor for the Annals of Cardiothoracic surgery under the guidance of Professor Tristan Yan.

Sutureless valve and rapid deployment valves: A systematic review and meta-analysis of comparative studies

Michael Williams[1], Campbell Flynn [2], Adam Chakos [1], David H. Tian [3]
[1] *Department of Cardiothoracic Surgery, Royal Prince Alfred Hospital, Sydney, Australia*
[2] *Department of Cardiothoracic Surgery, Epworth Hospital, Melbourne, Australia*
[3] *Department of Anaesthesia and Perioperative Medicine, Westmead Hospital, Sydney, Australia*

Background: The treatment of aortic valve disease is the most common valvular surgery in industrialised nations. As transcatheter aortic valve replacement (TAVR) has become more established, newer surgical prostheses have been developed with a variety of anchoring systems that do not rely solely on sutures to hold the valve in an appropriate position. This meta-analysis compares the outcomes of comparative studies of these two valve systems.

Methods: Six electronic databases were searched for articles comparing outcomes of rapid-deployment valves (RDV) and sutureless valves (SURD). Outcomes measured included all-cause mortality at latest follow up, stroke, cross-clamp and cardiopulmonary bypass (CPB) times, pacemaker implantation rates, paravalvular leak and post-operative transvalvular gradient.

Results: The search strategy identified 407 unique papers for initial assessment with seven studies qualifying for inclusion in the analysis. The outcomes of 4,076 patients (1,650 RDV, 2,426 SURD) were included. There was no difference in mortality, stroke or moderate or worse paravalvular regurgitation between the two groups. SURD had significantly shorter CPB time by 15.7 minutes [95% confidence interval (CI): 4.2–27.1; P=0.007] and a shorter cross-clamp time by 11.3 minutes (95% CI: 6.3–16.3; P<0.001) compared to RDV. RDV had a lower post-operative transvalvular gradient by 2.5 mmHg (95% CI: 1.2–3.8; P<0.001) and a lower rate of mild paravalvular regurgitation (OR 2.51; 95% CI: 1.435–4.768; P=0.004).

Conclusions: Both valve types have an adequate safety profile and are comparable to conventional sutured prostheses. There was a significant reduction in cross-clamp and CPB times associated with SURD. This may be of benefit for patients requiring multiple concomitant procedures and increases the utility of minimally invasive valve replacement. However, SURD was associated with higher post-operative transvalvular gradients and a higher incidence of paravalvular regurgitation.

Biography

Michael is an unaccredited Cardiothoracic surgical registrar in Sydney Australia. He has completed a Master of Surgery (Cardiothoracic surgery) at University of Sydney and is heavily involved in clinical research. He is also a section Editor for the Annals of Cardiothoracic surgery under the guidance of Professor Tristan Yan

Can you hear that click? Patients' experiences post mechanical valve replacement

Sally Harrison
Department of Cardiothoracic Surgery, Dunedin Public Hospital, New Zealand

Introduction: Although there is an increased propensity for implantation of bioprosthetic heart valves, there are still many patients who have insertion of mechanical heart valves. Mechanical valve replacements have significant differences to bioprosthetic valve replacements due to valve composition and anticoagulation side effects. A retrospective study of patients' experiences post mechanical valve replacement was performed.

Method: Records for all valve replacements at Dunedin Public Hospital from January 2014-December 2018 were obtained. 451 valve replacements in 443 patients were performed. There were 55 mechanical valve replacements (32 aortic valve replacements (AVR), 21 mitral valve replacements (MVR) and 2 tricuspid valve replacements (TVR)) in 46 patients, with an age range between 45-90 years. All patients were ≥ 1 year since their operation. Phone interviews were conducted with each patient.

Results: Forty-four patients (a total of 53 valves) underwent a phone interview, with one patient unable to participate due to stroke and one unable to be contacted by phone. Twenty-one patients (47.7%) frequently heard their valve clicking, with no patients stating it affected their sleep. One patient (2.3%) had a stroke post valve implantation, and ten patients (22.7%) experienced a significant bleeding episode (including subdural haemorrhage, epistaxis, haematuria and melaena). Twenty- five patients (56.8%) had a consistently therapeutic INR. All patients were happy with their valve choice.

Conclusion: Valve choice can be a difficult decision for patients to make. Although bioprosthetic valve implantation now surpasses mechanical valves, it is important to remember that there is the threat of reoperation in a younger population and this is especially true for mitral valves, where a transcatheter option is still not readily available. Overall, there is a greater need for assistance with decision making preoperatively, with the possibility of using decision making tools to ensure the best prosthesis choice is made for each individual patient.

Biography:

Dr Sally Harrison is a Cardiothoracic Surgery Registrar from Dunedin Hospital in New Zealand. She completed her medical degree at the University of Queensland in Australia and has worked at both the Princess Alexandra Hospital and Gold Coast Hospital in Queensland.

EVALI reaches Australian shores. First documented case of EVALI in Australia

Abdullah Shehzad[1], Rachel Jackson[2], Mohammed Jadaan[2]
[1]*Perioperative Resident, Bussleton District Hospital, West Busselton 6280, Australia.*
[2]*Senior Medical Officer, Bussleton District Hospital, West Busselton 6280, Australia.*

This poster/presentation details the first reported case of EVALI in the Australian population. Electronic - cigarette, or vaping product use, associated lung injury or more commonly known in America as EVALI. An e-cigarette is a battery-powered device that produces an inhaled aerosol by heating a liquid that contains nicotine, flavourings, and other chemicals. E-cigarettes have been shown to contain at least six groups of potentially harmful toxic compounds. EVALI has taken the lives of 60 people between June 1st, 2019 to January 14, 2020 out of a total of 2668 reported cases.
This case is about a 35year old gentleman who presented to the emergency department of a rural hospital with pleuritic chest pain, shortness of breath, cough, and rhinitis for 24 hours. The patient denied any recent travel or sick contacts. His past medical history revealed asthma, reflux, ex-IVDU, schizophrenia and post-traumatic stress disorder.
He admitted to heavy vaping which included intermittent use of THC via similar methods. The vaping liquid was imported from overseas and was bought on the internet.
Physical examination revealed an anxious, distressed looking man with tachypnoea, tachycardia, and hypoxia. Chest examination revealed reduced air entry and fine bibasal crackles. CT chest revealed pathognomonic changes pertinent to EVALI. This case is the first documented case of EVALI in Australia that matches the CDC criteria.
Further controlled studies are required to pinpoint and trace the harmful substance/s causing respiratory failure in this ever-expanding cohort of vaping/ e-cigarette patients. There is a strong association noted within the cohort that use THC dissolved with vitamin E additives, but the evidence is not yet substantial enough to rule out other chemicals of concern in these heavily marketed products and remains a public health concern.

Biography:

Abdullah is a preoperative resident currently working at the Bussleton Health Campus. He also is an active author on Life in the Fast Lane (Online ED Journal), Co-chair of the Joondalup Health Campus RMO Society and an avid golfer.

A decade of experience with ruptured abdominal aortic aneurysms: What have we learned?

Anoosha Aslam[1], Charles Fisher[1], Vikram Puttaswamy[1]
[1]*Department of Vascular Surgery, Royal North Shore Hospital, Australia*

Introduction: Ruptured abdominal aortic aneurysms (rAAA) are known to be catastrophic events which require urgent intervention. Our hospital is a tertiary referral centre where rAAA cases have been referred for either open or endovascular repair.

Methods: We have performed a retrospective review of all patients presenting to our unit with rAAA in the past 10 years from January 1, 2010 to December 31, 2019 (n = 46). Individual riskfactors and demographics were analysed. Imaging was reviewed for patients who underwent CT angiography prior to intervention. Patients with tender but unruptured aneurysms, iliac artery aneurysms and previous aortic grafts were excluded from this study.

Results: This cohort consisted of 6 females and 40 males, with mean age of 77.7 years. Preoperative imaging (CT angiography) was reviewed for 38 patients. The average anteroposterior (AP) diameter was 8.1 and transverse diameter was 8.3 cm. There were 3 patients with maximum aortic diameter (AP or transverse) less than 5.5 cm. 19 patients underwent open repair whilst 23 patients underwent endovascular repair. 4 patients have intraoperative conversion from endovascular repair to laparotomy for drainage of retroperitoneal haematoma, and there was a 100% mortality rate from multiorgan failure in the patients who underwent intraoperative conversion to laparotomy.

Conclusion: The 5.5 cm criterion is a well-known threshold used to determine the need for elective AAA repair. However single diameters should not be used to predict risk of rupture. Instead 3D reconstruction should be utilised to determine the aneurysm morphology and maximum diameter. Furthermore, in patients with known AAA, the decision to treat this electively is a complex one. Individual risk factors and anatomy of the aneurysm need to be assessed in conjunction with patient/family wishes.

Determining the fate of the distal aorta after Type A aortic dissection: A meta analysis

Anoosha Aslam[1], Vikram Puttaswamy[1]
[1]*Department of Vascular Surgery, Royal North Shore Hospital, Australia*

Introduction: Acute aortic dissection is defined as a separation of layers of the aortic wall due to an intimal tear.
It was first described by Italian anatomist Morgani in 1761 as an emergency. There are two commonly used classification systems to divide aortic dissection into Type A and Type B (Stanford classification) or Type 1, Type 2 and Type 3 (DeBakey System). For the purposes of this study, we will be referring to the Stanford classification in which acute Type A dissections (ATAD) are defined as all dissections involving the ascending aorta and acute Type B dissections (BTAD) are defined as all aortic dissections involving the descending thoracic or thoracoabdominal aorta distal to the origin of the left subclavian artery.

Methods: We have performed a meta analysis of the literature available to assess the progress of the thoracic/abdominal aorta after ATAD repair. The terms “type A aortic dissection” and “follow up” were searched on Medline. 4 relevant trials were identified.

Results: All 4 studies found a gradual increase in the distal aorta. The thoracic aorta was thought to be more high risk for expansion than the abdominal aorta.

Discussion: There is a paucity of data regarding this topic. False lumen patency is thought to accelerate the yearly aortic growth rate, and the hence the incidence of distal aortic rupture was higher in patients

with a patent false lumen. False lumen patency was a predictor for late death after ATAD repair and for retreatment of the descending aorta.

Conclusion: ATAD is highly lethal disease in which early diagnosis and urgent surgical intervention provide the best hope for survival. Even after survival of ATAD, residual distal aortic tears may be missed. We highlight the need for long term follow up and review of imaging of the distal (thoracic and abdominal) aorta in this group of patients order to study the distal aortic sequelae of ATAD. The presence of a persistent false lumen raises the possibility of requiring staged elective interventions for the distal aorta in the long term.

Tuberculous popliteal aneurysm: A rare case report

Anoosha Aslam[1], Vikram Puttaswamy[1]
[1]*Department of Vascular Surgery, Royal North Shore Hospital, Australia*

Introduction: Popliteal aneurysms are defined as a focal dilatation of the popliteal artery more than 50% of the vessel diameter. Popliteal aneurysms are known to be associated with atherosclerosis, smoking and connective tissue disorders. Symptomatic popliteal aneurysms require surgical intervention due to the risk of developing thrombosis and acute limb ischemia.

Methods: We present a rare case report involving Mr XY, a 76-year-old gentleman who presented with right lower limb pain on a background of ischemic heart disease, hypertension and dyslipidemia. He underwent imaging of the right lower limb demonstrating a right popliteal saccular aneurysm measuring 3.5 cm in size with surrounding fluid collections. Mr XY subsequently underwent endovascular stenting procedures (using covered stents) for this and was discharged. He re-presented with right thigh pain/ swelling and was found to have enlarged collections in his surrounding soft tissues. These collections were aspirated by interventional radiology and sent for further investigation.

Results: Acid fast bacilli were seen in the fluid microbiology and PCR was positive for mycobacterium complex. Mr XY was thought to have a disseminated tuberculous infection which was associated with the formation of the popliteal aneurysm and eventually multiple large surrounding collections.

Conclusion: This is a rare case of patient developing not only a significant aneurysm, but also multiple collections in the context of disseminated tuberculous infection.

Spontaneous retroperitoneal haematoma: An interesting case report

Anoosha Aslam[1], Walid Mohabbat[1]
Department of Vascular Surgery, Royal North Shore Hospital, Australia

Introduction: A spontaneous retroperinoteal haematoma (SRH) occurs when there is bleeding into the retroperitoneal space. This can present as a catastrophic event with sudden onset. The etiology is usually related to trauma, iatrogenic causes, or rupture of retroperitoneal organs or aneurysms. The aim of this study is to discuss a case of SRH with uncertain etiology and to analyse the possible causes of this.

Case Report: A 76-year-old man presented with sudden onset right iliac fossa abdominal pain on a background of previous ruptured abdominal aortic aneurysm (AAA) requiring repair 13 years ago. He also underwent re-do laparotomy for suspected ischemic gut 7 years ago. He was not on anticoagulation however he was on an antiplatelet agent (aspirin). On arrival to the Emergency Department, he was haemodyanamically stable with a haemoglobin of 99 g/L. Bedside ultrasound demonstrated that his abdominal aorta was normal sized. He underwent computerised tomography (CT) with arterial phase which confirmed the presence of a large retroperitoneal haematoma with no arterial blush and no obvious source. The aortic graft was patent and visceral organs were intact.

The patient was admitted for observation into the Intensive Care Unit. He was kept on bed rest and aspirin was withheld. His haemoglobin remained stable and repeat CT demonstrated a significant reduction in the size of the haematoma.

Discussion: The suspected likely causes of this patient's presentation would include ruptured aortic graft, or bowel obstruction/perforation given his history of laparotomies and likely presence of adhesions. Other differential diagnoses include ruptured gastroduodenal artery aneurysm, ruptured pancreatic pseudocyst and duodenal perforation given that the haematoma appeared to be compressing the pancreas on imaging.

Conclusions: Retroperitoneal haematomas require careful consideration and discussion with a vascular surgeon or interventional radiologist or to assess the likely cause. Unstable patients require urgent formal angiogram +/- further intervention depending on the etiology. However, in stable patients with no signs of deterioration, the decision to intervene is a complex one, particularly when there is no certain etiology. This represents a diagnostic dilemma which requires specialist consultation.

Spontaneous occlusion and recanalisation of the renal artery

Anoosha Aslam[1], Michael Neale[1]
Department of Vascular Surgery, Royal North Shore Hospital, Australia

Introduction: Isolated spontaneous renal artery dissection (ISRAD) is a rare clinical entity with significant clinical effects on patients. The likely causes of isolated renal artery dissection include spontaneous, traumatic or iatrogenic factors. The goal of this report is to study a case of ISRAD which was managed non-operatively and eventually resulted in spontaneous recanalisation of the renal artery.

Case Report: A 57-year-old lady presented to the Emergency Department with a 5 day history of right flank pain. This is on a background of aortic ectasia which was being monitored yearly with no previous requirement for intervention. She was afebrile, blood pressure was 152/88, and heart rate 84. Creatinine was 88 and eGFR 63. Urinalysis was negative for leukocytes/nitrites. Computerised tomography (CT - arterial phase) demonstrated occlusion of the right renal artery and infarction of the right kidney. The patient was commenced on anticoagulation (unfractionated heparin infusion) and monitored. She was given oxycodone for analgesia. During admission she developed a systemic inflammatory response with fever and rising inflammatory markers and was noted to have a left pleural effusion on imaging. This was treated with intravenous antibiotics with good effect.

On discharge her renal function normalised (Cr 68, eGFR 86), and inflammatory markers were down trending. She was discharged on apixaban and followed up in two months' time. Repeat CT demonstrated recanalisation of the right renal artery.

Discussion: The most likely of the patient's renal artery occlusion was dissection with superimposed thrombosis. There was no change in the known ectasia of her abdominal aorta on imaging. She was managed conservatively as her renal function returned to normal and she responded well to anticoagulation.

Conclusion: The decision to treat isolated SRAO is a complex one. In this case the patient did not require intervention and eventually developed spontaneous recanalisation of the renal artery with normal resistive index. However further case reports and data will be required to assess whether there is an overall benefit in intervention for spontaneous renal artery occlusion and dissection.

Role of PiCCO in patients with acute respiratory distress

Le Duc Nhan[1], Hoang Huu Hieu[1], HoDac Hanh[1], Pham Minh An[1]
[1]*Intensive Care Unit, Danang Hospital, Danang, Vietnam*

The acute respiratory distress syndrome (ARDS) is a common syndrome in critical care, associated with increased use of resources and a high mortality rate, about 50 %. Extravascular lung water indexed (EVLW) and pulmonary vascular permeability index (PVPI) are two markers of lung edemacan be measured using the transpulmonarythermodilution (TPTD) technique. We aimed to evaluate whether EVLW and PVPI would identify ARDS patients at risk of mortality in our ICU.EVLW and PVPI measurements were obtained at the 0h, 24h, 48h and 72h by using transpulmonarythermodilution on PiCCO monitoring system. We assessed the trends of EVLW t and PVPI as predictive markers mortality. The baseline EVLW in the survival group was 13.5 ± 3.2 ml / kg, and the non-survival group was 14 ± 2.2 ml / kg. The difference was not statistically significant with $p > 0.05$. At 72h, the survival group was 13.5 ± 3.1 ml / kg while the non-survival group was 17 ± 5.5 ml / kg ($p<0.05$). The baseline PVPI in the survival group was 3.3 ± 0.9, and in the non-survival group was 3.3 ± 1. At the time 72h, the survival group was 3.2 ± 0.9 while the non-survival group was 3.8 ± 1. The difference is statistically significant with $p <0.05$.

Biography:

Dr. Le DucNhan has completed his PhD from Hanoi University of Medicine, Vietnam. He is the head of ICU, director of Danang Hospital, Vietnam, Vice-president of Vietnam Association of Critical care medicine.

Pain and regional anesthesia

V R Udhayanan
Chief Civil Surgeon, Department of Anesthesia, Thanjavur Medical College, India

Regional anesthesia was a blind technique to begin with and resulted in accidental intravascular injections, drug toxicities and nerve damage along with pain of technique itself.
With the incorporation of ultrasound, regional anesthesia is performed under direct vision. In this lecture I intend to present the developments in central neuraxial, upper and lower limb blocks. Ultrasound has enabled “fascial plane blocks” like TAP blocks leading to a plethora of blocks called Truncal blocks, as being used in Breast, Chest wall and Abdominal surgeries.
I shall discuss about PECS blocks, modified PECS blocks, Rectus sheath blocks, Quadratus lumborum blocks and Erector Spinae blocks.
Regional anesthesia techniques have enabled reduction in opioid usage. Recent developments in local anesthetic drug molecules and adjuvant drugs help prolongation of analgesia.
I shall also discuss about intracluster injection, perineural drug delivery techniques and regarding reduction in incidence of cancer recurrence following regional anesthesia techniques.

Biography:

Dr. V R Udhayanan is currently a Chief Civil Surgeon in the Department of Anesthesia in Thanjavur Medical College in India. Formerly he was a Registrar in Department of Anesthesia of Thanjavur Medical College. He is also a Consultant Anesthesiologist at various hospitals including Vinodhagan multispeciality hospital, Rohini multispeciality hospital, Saravana speciality hospital etc.
His field of interest is Regional anesthesia. He presented various papers including one at International conference of Obstetrics and gynecology on Regional Anaesthesia.

Management of childhood functional Constipation

Arun Jain
Senior Consultant Pediatrician & Neonatologist, Director, Dr Arun Child Hospital, Agra , India

Abstract:

Functional Constipation is a common problem in children.

Functional Constipation refers to a form of chronic Constipation in children (i.e. symptoms > 2 months) and there are no demonstrable anatomic, physiologic or histopathological abnormalities to explain the same.

Investigation is seldom required.

Constipation is difficulty & delay in passing stools resulting in significant distress lasting for more than 2 weeks.

5-10 %: Organic causes. 90-95 %: Functional constipation

Functional constipation should be diagnosed only in the absence of red flags on history and examination. Those with impaction and/or retentive incontinence should be disimpacted with polyethylene glycol (hospital or home-based). Osmotic laxatives (polyethylene glycol more than 1 year of age and lactulose / lactitol less than 1 year of age) are the first line of maintenance therapy. Stimulant laxatives should be reserved only for rescue therapy. Combination therapies of two osmotic, two stimulants or two classes of laxatives are not recommended. Laxatives as maintenance therapy should be given for a prolonged period and should be tapered off gradually, only after a successful outcome. Essential components of therapy for a successful outcome include counselling, dietary changes, toilet-training and regular follow-up. Commonest cause of recurrence is premature withdrawal of laxatives.

Biography

Dr. Arun Jain is a Consultant Pediatrician & Neonatologist. He is the director of *Dr Arun Child Hospital, Agra , India* and the Hon. Secretary, IAP, Agra, Executive Member UP-IAP (2019-2020).
He has awarded with the Prestigious “Gold Medal” for getting highest marks in D.C.H in 1998. He worked in Pediatric Intensive Care Unit at Kalawati saran children hospital, New Delhi.
He has taught post graduate students during Senior Residency at Kasturba Hospital, New Delhi and DNB students at Pushpanjali Hospital, Agra.

Person living with dementia in existing housing system and requirements of modern time

Osman Kučuk[1], Emina Kučuk[1]

[1]*Center for Dementia; Sarajevo; Bosnia and Herzegovina*

Background: The all segments of the current societies of SE Europe are adjusted for normal functioning of population between 15 and 55 years. Now, that societies suffer a huge demographic changes. In this Region, there are societies that will in the very short time till 2030. : lose more then 15% of population, aging average will be 47 and in total population, percentage of people 60+ will be twice as big as the average world percentage. (UN DESA; World Population Prospect:2015) It will have a strong impact on the life of older adults and people living with dementia. That facts will change their requests and they will need to adjust their habits and way of life.

Method: The research will compare today's way and organisation of life of elderly and possibilities by the system with recommendations by WHO (Aging and Health Global strategy) and to necessity of adjusting and transformation of system in the new one, selfsustainable system in accordance with needs of elderly.

Results: Traditional way of life of older adults and people living with dementia have not appropriate for this time and offers of the social and health services that will compensate misses of this system have not sufficient without support by state.

Conclusion: The new system need to provide the satisfactory answer to basic requests of elderly: freedom, dignity, choice and control through 5 principles:

1. Fostering healthy ageing
2. Creating age-friendly environments / Dementia friendly societies
3. Aligning health systems to the needs of older populations
4. Developing long-term care systems (home, communities and institutions)
5. Improving measurement, monitoring and research on healthy ageing

Key words: dementia, alzheimer, healthy aging, long-term care, palliative care, dementia friendly society, age-friendly environments, new housing needs, health care system, social care system, center for dementia

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Benefit of early atrial fibrillation ablation in the setting of sick sinus syndrome

Saima Karim[1,2]

[1]*Associate Program Director for Electrophysiology Fellowship*
[2]*Assistant Professor of Medicine, Case Western Reserve University, USA*

Introduction: The correlation between atrial fibrillation ablation in regard to mitigation of the need for pacemaker in sick sinus syndrome is unknown.

Methods: Our study focused on assessing 66,595 patients who underwent atrial fibrillation ablation who have a diagnosis of atrial fibrillation ablation IBM Explorys database, which contains de-identified database of 60 million patients in the US.

Results: Atrial fibrillation ablation proved to be beneficial in reducing the need for pacemaker implantation in patients if it was performed within 5 years of diagnosis of atrial fibrillation among patients with sick sinus syndrome.

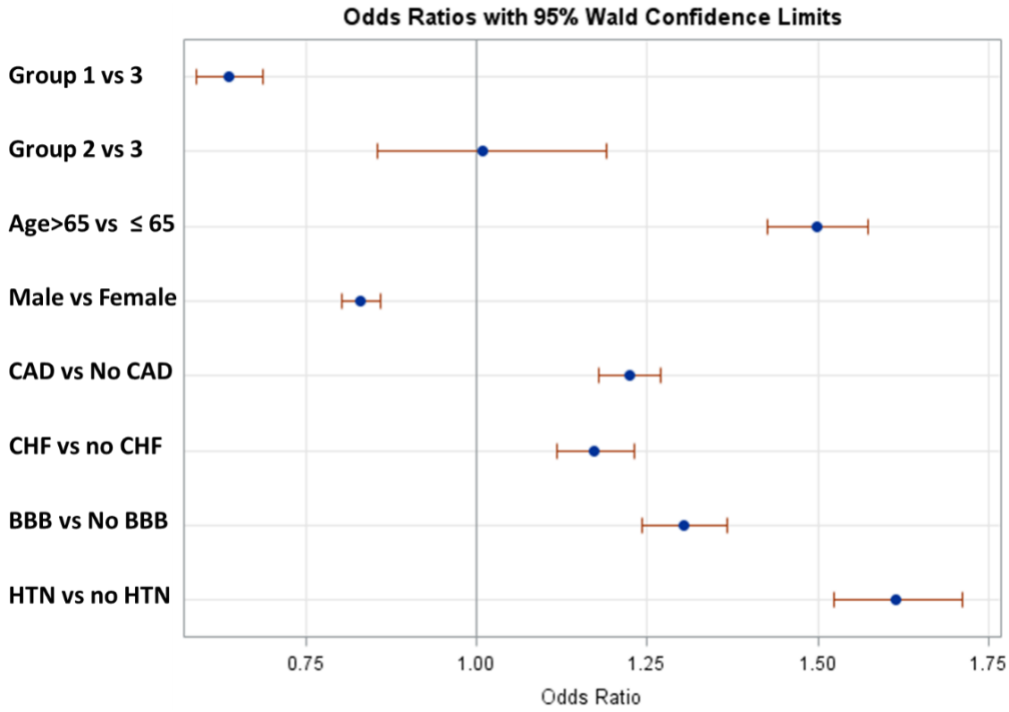

Figure 1: Forest plot showing adjusted odds ratio of pacemaker implantation in different risk groups. The dots represent the odds ratio, and the horizontal line represents the 95% confidence interval. Abbreviations; CAD: coronary artery disease, CHF: congestive heart failure, BBB: bundle branch block, HTN: hypertension.

Cardiac implantable device extraction: Overview and update

Saima Karim DO, FACC, FHRS[1,2]

[1]*Associate Program Director for Electrophysiology Fellowship*
[2]*Assistant Professor of Medicine, Case Western Reserve University, USA*

Introduction: Cardiac Implantable device extraction involves a detailed preparation prior to extraction. This will be based on a series of interesting and challenging cases highlighting indications and specifics for device extractions.

Objectives:

- Clarify Universal definitions for Cardiac implantable device and dead removal.
- Discuss indications for cardiac implantable device and dead removal.
- Risk stratification for patients prior to procedure
- Preparation for device and lead extraction
- Case based review of lead or device removal including novel developments.

Emerging targets in coronary artery disease: lncRNA-mediated control of vascular senescence and atherosclerosis

Mark W. Feinberg, MD[1,2,3]
[1]*Cardiovascular medicine specialist at Brigham and Women's Hospital (BWH)*
[2]*Associate professor of medicine at Harvard Medical School (HMS)*
[3]*An affiliated faculty member at the Harvard Stem Cell Institute, Boston, USA*

Long noncoding RNAs (lncRNAs) are emerging regulators of biological processes in the vessel wall; however, their role in atherosclerosis remains poorly defined. We used RNA sequencing to profile lncRNAs derived specifically from the aortic intima of Ldlr−/− mice on a high-cholesterol diet during lesion progression and regression phases. We found that the evolutionarily conserved lncRNA small nucleolar host gene-12 (SNHG12) is highly expressed in the vascular endothelium and decreases during lesion progression. SNHG12 knockdown accelerated atherosclerotic lesion formation by 2.4-fold in Ldlr−/− mice by increased DNA damage and senescence in the vascular endothelium, independent of effects on lipid profile or vessel wall inflammation. Conversely, intravenous delivery of SNHG12 protected the tunica intima from DNA damage and atherosclerosis. LncRNA pulldown in combination with liquid chromatography–tandem mass spectrometry (LC-MS/MS) analysis showed that SNHG12 interacted with DNA-dependent protein kinase (DNA-PK), an important regulator of the DNA damage response. The absence of SNHG12 reduced the DNA-PK interaction with its binding partners Ku70 and Ku80, abrogating DNA damage repair. Moreover, the anti-DNA damage agent nicotinamide riboside
(NR), a clinical-grade small-molecule activator of NAD+, fully rescued the increases in lesional DNA damage, senescence, and atherosclerosis mediated by SNHG12 knockdown. SNHG12 expression was also reduced in pig and human atherosclerotic specimens and correlated inversely with DNA damage and senescent markers. These findings reveal a role for this lncRNA in regulating DNA damage repair in the vessel wall and may have implications for chronic vascular disease states and aging.

Biography:

Dr. Mark W. Feinberg is a Cardiologist and vascular biologist at Brigham and Women's Hospital (BWH) and an Associate Professor of Medicine at Harvard Medical School. Dr. Feinberg is Director, Program in Cardiovascular RNA Biology that investigates mechanisms leading to the development of a range of macrovascular (e.g. atherosclerosis and coronary and peripheral artery disease) and microvascular disease

(e.g. diabetic wound healing). His group has elucidated the functional role of non-coding RNAs (microRNAs and lncRNAs) in endothelial cells and has translated these findings into novel therapeutic approaches for ischemic cardiovascular disease states. Dr. Feinberg has held various leadership roles in cardiovascular research including his service on national peer review study sections, editorial service, and as a Co-Chair of the Brigham Research Institute's Cardiovascular, Diabetes, and Metabolic Disorders Center. Dr. Feinberg completed his Cardiovascular Medicine fellowship training at Brigham and Women's Hospital, where he subsequently joined the faculty. Dr. Feinberg is a member of the American Society of Clinical Investigation and has received several major research awards including an AHA Louis N. and Arnold M. Katz Prize Finalist and the David W. Haack Memorial Award.

Reduction in false positive stress echocardiograms with ultrasound enhancing contrast agent

Andrew Victor MD, Nikhil Kumar MBBS, Akshay Bagai MD, Khaled Ali MD, Jeremy Edwards MD
Whitby Cardiovascular Institute, Canada

Stress echocardiography (SE) is a validated diagnostic tool for the detection and assessment of coronary artery disease (CAD). Ultrasound enhancing agents have been shown to improve diagnostic accuracy of SE. We demonstrate the improvement in diagnostic accuracy of SE after the introduction of an ultrasound enhancing agent (DEFINITY). A total of 126 patients from a single center Cardiology practice were assessed for inducible ischemia using treadmill SE. All of the patients showed reversible wall motion abnormalities at peak imaging where 56 tests were done without contrast use and 70 tests were done using the contrast agent. All SE were interpreted by a single physician. All patients with abnormal SE were referred for coronary angiography. When compared with their angiographic results, 51.7% of positive stress echocardiograms done without contrast were found to have obstructive CAD requiring intervention. This number increased to 71% when contrast was used for the test. This demonstrates an increase in diagnostic accuracy of 20% that can be attributed to wall motion image enhancement using a contrast agent. Of the 126 patients studied, 86 were male and 40 were female. Most of the patients had pre-existing risk factors including hypertension, diabetes, dyslipidemia, strong family history and smoking history. 30% of the patients having a positive SE with contrast had minimal or no ST/T changes. Treadmill exercise SE is a relatively cheap, effective and readily available diagnostic tool in the assessment of CAD. A 20% increase in diagnostic accuracy has been shown with this study which supports current evidence. Enhanced wall motion image detection has proven to be a more sensitive indicator for obstructive CAD than ECG tracings alone. Greater time and experience in wall motion abnormality detection using a contrast agent will likely show even higher diagnostic accuracy and the data has begun to show this positive trend.

Biography:
Andrew earned his Bachelor's degree in Cell & Molecular Biology from Concordia University in his hometown of Montreal, Quebec, Canada before completing his medical degree from the University of Medicine and Health Sciences with clinical training across the USA and Canada. He is currently awaiting residency and works as a Physician Assistant under the supervision of Dr. Naresh Kumar at Whitby Cardiovascular in Whitby, Ontario, Canada.

DAY 2
KEYNOTE FORUM

Keynote Abstracts

Title: Pandemic disordered healthcare

Heatherlee Bailey, MD, FAAEM, FCCM
Past President, Society of Critical Care Medicine (SCCM)

The pandemic has disrupted all aspects of current life. From the way we care for patients encased in PPE, to socially distanced conversations with colleagues and friends, to the way we purchase our groceries, almost nothing has remained the same from pre-pandemic times. The changes in healthcare can be broken down into three main overlapping but separate areas: those affecting patients and families, healthcare workers, and hospitals and healthcare systems. There are complex and challenging issues in each of the areas of focus. Many patients have delayed seeking care because of the fear of “catching the Covid”. Once in the health system, they are typically more ill and they are frequently isolated from family and loved ones due to visitation restrictions related to the pandemic. In many places the only family exposure is by video call or phone.The health care staff, most commonly the bedside nurse, becomes the surrogate family, even more so than in pre-pandemic times. This adds to the staff workload and compounds the stress placed on the health care worker thus increasing the potential for both mental and emotional exhaustion which in turn may lead to burnout. Medical education of students and house staff has been altered including for some, limited to no contact with patients especially those that may have SARS COV2.For many, academic careers and noncovid related research has been sidelined. Almost all meetings, education and even family contact has been relegated to a digital platform.Hospitals and health systems face multiple challenges. Some broad examples are; too many patients, not enough critical care beds or monitored locations to place patients, shortages of PPE, ventilators and other equipment, medication and most importantly shortages of staff. These issues have forced the medical community to become creative in many different facets including the development of novel ICU spaces and rapid education of non-critical care trained staff to care for the surge of critical patients.

Biography:

Dr. Bailey is an Emergency Medicine Intensivist. She attended Alfred University and completed medical school at the Rutgers University of Medicine and Dentistry in Newark, New Jersey. Dr Bailey completed her residency in Emergency Medicine at the Medical College of Pennsylvania In Philadelphia and then joined the faculty. After a faculty fellowship in critical care, she served as her department’s Director of Critical Care Education and their Associate Residency Program Director. She is currently Faculty in the Department of Emergency Medicine at the Durham VA Medical Center in North Carolina.

Her career has been rooted in education, trainee development, and mentorship.Her dedication and expertise has also been nationally recognized. She was awarded the Dr. Joseph and Rae Brown award for her SCCM chapter contributions as well as the American Medical Association’s Women’s Mentoring Award in 2008. Given her prominence in the field, Dr. Bailey serves as an Oral Board Examiner for the American Board of Emergency Medicine.

Volunteering remains an important part of Dr. Bailey’s career and her interests in the management of injury and critical illness span the globe. She was an important contributor and an international instructor of the Comprehensive Trauma Life Course for India as part of her work for the International Trauma Anesthesia and Critical Care Society.

Dr. Bailey has been actively involved in the Society of Critical Care Medicine for more than 20 years serving in a wide variety of roles, including as the 48th SCCM President from 2019-2020. Dr. Bailey’s path of volunteerism, mentorship and leadership led her to be the first Emergency Medicine trained President of SCCM.

Title: Hypertension risk from iron brake particulate matter

William J. Rowe, MD, FBIS, FACN
Former Assistant Clinical Professor of Medicine, Medical University of Ohio at Toledo, USA

Of 12 moon walkers, James Irwin on day after return from Apollo 15 mission, showed extraordinary bicycle (B) stress test (ST) hypertension (275/125) after 3 minutes exercise; supervising > 5000 maximum treadmill ST, author never witnessed ST- blood pressure approaching this level. Symptom-limited maximum B stress test showed “cyanotic fingernails”; possibly venous blood trapped peripherally, supporting author’s “Apollo 15 Space Syndrome,” postulating that severe fingertip pain during space walks, triggered by plasma fluid, trapped distally; mechanism could be related to endothelial dysfunction, providing “silent ischemia” warning. Neil Armstrong returned to Earth with severe diastolic hypertension (160/135), consistent with ischemic left ventricular dysfunction; 50 mm increase in comparison with resting BP 110/85. With inhalation of lunar dust, brought into habitat on space suit, with high lunar iron (I) this dust inhalation, along with reduced (R) space flight- transferrin, R antioxidant, calcium (Ca) blocker -magnesium, conducive to severe oxidative stress, Ca overload with potential endothelial injuries. Using moon walker studies as example, my recent editorials show that I dust, released from brakes, with over 90% of brakes made of I, is a major hypertension factor and may also contribute to myocardial infarctions.

Biography:

William J. Rowe M.D. FBIS (Fellow British Interplanetary Society), FACN (Fellow American College of Nutrition, Retired Fellow Royal Society of Medicine), is a board-certified specialist in Internal Medicine. He received his M.D. at the University of Cincinnati and was in private practice in Toledo, Ohio for 34 years. During that time, he supervised over 5000 symptom - limited maximum hospital-based treadmill stress tests. He studied 3 world class extraordinary endurance athletes and published their exercise-related magnesium deficiencies. This triggered a 20 year pursuit of the cardiovascular complications of Space flight. All his publications are posted on his website www.femsinspace.com).

Scientific Sessions & Abstracts

Day 2, March 20, 2021

11:30 GMT +05:30

2020 World Heart and Cardiothoracic Surgery Conference
2020 World Neuroscience, Psychiatry & Dementia Conference
2020 World Critical Care and Anesthesiology Conference,
2020 World Pediatrics Conference

Title: Ascending aorta and arch surgery in the octogenarian and nonagenarian: Advanced age is not a contraindication

Michael Williams
Department of Cardiothoracic Surgery, Royal Prince Alfred Hospital, Sydney, Australia

Title: Systematic review and meta-analysis of homograft versus valve and valved conduits for extensive aortic root endocarditis

Michael Williams
Department of Cardiothoracic Surgery, Royal Prince Alfred Hospital, Sydney, Australia

Title: Expected partial pressure of oxygen (EPao2) with respect to different fraction of inspired oxygen Fio2

Nandkishor Agrawal
Professor, Department of Anesthesiology, AIIMS, India

Title: Postoperative pain in children- Assessment and management

Vaishali Waindeskar
Professor and Head, Department of Anesthesiology and Critical Care, AIIMS Bhopal, India

Title: Respiratory management process adjustment to care given to critically-ill adult COVID-19 patients admitted to the intensive care unit tertiary healthcare facility in the Philippines

Aaron Mark R. Hernandez
Head, Intensive Care Program, Program Director, Adult Critical Care Fellowship Training Program Asian Hospital and Medical Center, Philippines

Post-infectious dengue fever complicating as guillain-barré syndrome: A case report

Uzzwal Kumar Mallick
Department of Critical Care Medicine, National Institute of Neurosciences & Hospital, Dhaka, Bangladesh

Anesthesia for a high-risk case

Balasaheb Bande
Anesthesiologist, K. E. M. Hospital, India

Comparison of Microbial Profile and resistance pattern of Early and Late Onset Ventilator Associated Pneumonia in a Tertiary Care ICU of Bangladesh

Uzzwal Kumar Mallick
Department of Critical Care Medicine, National Institute of Neurosciences & Hospital, Dhaka, Bangladesh

Title: Modulation of neural cell proliferation in the brain of adult zebrafish after injury and paraquat exposure.

Surendra Kumar Anand
Laboratory of Cellular and Molecular Neurobiology, School of Life Sciences, Jawaharlal Nehru University, New Delhi, India.

Title: Brain ecology and PMLCP

Jian Zhong Zha
Director, Wuhan Keli Institute of Women's Studies, China

Title: Experience in managing patients with coronavirus infection at mass admissions.

Gulchekhra Khamraeva
Department of Anesthesiology and Intensive Care in Pediatrics, Center for the development of professional skills of medical staff under the Ministry of Health of the RUz, Uzbekistan

Title: Effectiveness of nursing care bundle on prevention of ventilator associated pneumonia among mechanically ventilated patients admitted in Dhanvantri Critical Care Center, Erode, Tamil Nadu

P. Padmavathi
Principal, Dhanvantri College of Nursing, India

Title: Critical Care Management of COVID-19 patients: Single center experience in Nepal

Rajeeb Kumar Deo
Shree Birendra Hospital, Chhauni, Kathmandu, Nepal

Title: Epstein Barr infection leading to acute adrenal insufficiency, viral meningitis and hemolysis - A case report

Simant Kumar Jha
Department of Critical Care Medicine, PSRI Delhi, India

Title: Evaluation of different treatment modules for respiratory distress syndrome in preterm neonates

Rajeev kumar Mittal
Pediatrician (Scholar), Department of Pediatrics, Subharti Medical College, Meerut

Title: Pregnancy induced paralysis: And the mystery continues!

Rafia Khan
Department of Anaesthesiology and Critical Care, ESI-PGIMSR & Hospital, Basaidarapur, New Delhi-110015, India

Title: Nerve regeneration therapy and its application in the field of oral and maxillofacial surgery

Pram Kumar Subramaniam
Oral and Maxillofacial Surgeon, Faculty of Dentistry & Sultan Ahmad Shah Medical Centre, International Islamic University Malaysia, Malaysia

Title: Covid-19 impact on chronic pain patient and its solution

Endang Mutiawati
Pain and Headache Consultant, Department of Neurology Faculty of Medicine Syiah Kuala University, RSUD Dr. Zainoel Abidin, Indonesia

Title: Recurrence of mitral paravalvular leak. It is transcatheter closure always the best option?

Carmen Maria Moldovan
Department of Cardiology, Slagelse University Hospital, Denmark

Title: Strategies on cardiac parameters among patients with hypotension

Ms. Janani Eswaran
Incharge of Clinical Critical Care, Dhanvantri Multi Speciality Hospitals, Erode, India

Title: Extremity Osterosarcoma (O.S.): Evolution From Primary Amputation to Mainly Limb Salvage Surgery (LSS)

B. N. Rao
Department of Surgery, St. Jude Children's Research Hospital, USA

Title: Caregiving of a special needs individual who developed early onset dementia

Tahiera Monique Brown
CEO, Darkness To Light Films, USA

Title: Delirium – An intriguing and far-reaching problem in the perioperative and critical care setting

Matthew Scott Vandiver
Assistant Professor, University of California Los Angeles, USA

Title: Use of alkaline phosphatase in critically-ill patients

Zohra Malik
Department of Internal Medicine, Saint John's Episcopal Hospital, New York, USA

Session Abstracts

Ascending aorta and arch surgery in the octogenarian and nonagenarian: Advanced age is not a contraindication

Michael Williams[1], John Brookes[1], Tristan Yan[1], Paul Bannon[1]

[1]*Department of Cardiothoracic Surgery, Royal Prince Alfred Hospital, Sydney, Australia*

Objectives: Although advances in surgical techniques have improved the outcomes of aortic surgery it remains an invasive and higher-risk operation than standard cardiac surgery. Traditionally, such surgery was avoided or denied to elderly patients because of the high surgical morbidity and mortality thought to be associated with this age group. However, with an ever increasing ageing population, aortic surgery is being considered in an increasing number of octogenarians. The aim of this study is to analyse the outcomes of aortic surgery in an octogenarian (or older) population.

Methods: Our electronic records were retrospectively reviewed for patients eighty years or older who underwent aortic surgery (ascending aorta or arch surgery) at our institution Royal Prince Alfred Hospital, Sydney, Australia from January 2010 to December 2019. Acute aortic pathology was defined as occurring within two weeks from the onset of initial symptoms to the time of first presentation. Baseline patient characteristics and early postoperative outcomes were extracted for analysis.

Results: A total of 31 patients fulfilled the pre-defined selection criteria. The mean age was 83.42 years and 58% were male. The aortic pathology was mainly aneurysmal ascending aortic disease (65%), compared to acute type A dissection (25%) and intramural haematoma (10%). The overall 30 day in hospital mortality was 14%. The majority (64%) of patients were discharged to a rehabilitation centre or local referring hospital and the remaining 22% were successfully discharge home.

Conclusions: Octogenarians and nonagenarians can safely undergo ascending aorta and aortic arch replacement surgery with acceptable perioperative mortality. The conventional surgical management for ascending aorta and aortic arch diseases should not be abandoned purely because of the patient's age. Further studies are required to further delineate which subset of octogenarian and nonagenarian patients are at the highest operative risk and may benefit from a conservative approach.

Biography:

Michael is an unaccredited Cardiothoracic surgical registrar in Sydney Australia. He has completed a Master of Surgery (Cardiothoracic surgery) at University of Sydney and is heavily involved in clinical research. He is also a section Editor for the Annals of Cardiothoracic surgery under the guidance of Professor Tristan Yan

Systematic review and meta-analysis of homograft versus valve and valved conduits for extensive aortic root endocarditis

Michael Williams[1], John Brookes[1], Joseph S Jaya[2], Eren Tan[3]

[1] *Department of Cardiothoracic Surgery, Royal Prince Alfred Hospital, Sydney, Australia*
[2] *Department of Surgery, Monash Health, Victoria, Australia*
[3] *Department of Surgery, Eastern Health, Victoria, Australia*

Objectives: Infective endocarditis is a life-threatening condition. Patients frequently present profoundly unwell and extensive surgery may be required to correct the underlying anatomical deficits and control sepsis. Peri-annular involvement occurs in more than 10% of patients with aortic valve endocarditis. Complex aortic endocarditis has a mortality rate of 10-40%. Longstanding surgical dogma suggests homografts represent the optimal replacement option in complex aortic endocarditis, however there is a paucity of evidence and lack of consensus on the optimal replacement choice.

Methods: A meta-analysis was performed searching EMBASE, PubMed and the Cochrane Database to review articles describing homografts versus aortic valve and valved conduit graft implantation for complex endocarditis of the aortic root. The outcomes of interest were mortality, reinfection and reoperation.

Results: 11 studies were included in this meta-analysis, contributing 810 episodes of complex aortic endocarditis. All included reports were cohort studies. There was no statistically significant difference in overall mortality (RR 0.99, 95% CI 0.61-1.59, p=0.95), reinfection (RR 0.89, 95% CI 0.45-1.78, p=0.74) or reoperation (RR 0.91, 95% CI 0.38-2.14, p=0.87) between the homograft and valve/ valved conduit groups.

Conclusion: Overall there was no difference in mortality, reinfection or reoperation rates between homografts and other valve or valved conduits in management of complex aortic endocarditis. However, there is a paucity of high quality evidence in the area, and comparison of valve types warrants further investigation.

Biography

Michael is an unaccredited Cardiothoracic surgical registrar in Sydney Australia. He has completed a Master of Surgery (Cardiothoracic surgery) at University of Sydney and is heavily involved in clinical research.

Expected partial pressure of oxygen (EPao2) with respect to different fraction of inspired oxygen Fio2

Nandkishore K. Agrawal M.D[1], Jyoti Toshniwal M.D[2].

[1]Professor, Department of Anesthesiology, All India Institute of Medical Sciences (AIIMS), India
[2]Senior Resident, All India Institute of Medical Sciences (AIIMS), India

Fraction of inspired oxygen is the volumetric or molar fraction of oxygen in inhaled fresh gas given when patients experience difficulty in breathing means higher than normal oxygen than atmosphere is given. Natural air contains 21% oxygen, FiO2 0.21 which may be increased up to 1 means 100% oxygen. With increase in inspired oxygen, there is increase in alveolar and arterial partial pressure of oxygen. It is said and assumed that the partial pressure of oxygen in alveoli is approximately equal to the arterial partial of oxygen.

At Fio2 of 0.21, it may be correct as A-a gradient at this level is only 5to 7 mm of Hg but as FiO2 increases this may go up to 110 mm of Hg, which needs consideration, hence a mathematically calculated table is derived to have different partial pressure in arterial blood with A-a gradient.

A new terminology is being suggested as expected partial pressure of oxygen in arterial blood i.e. EPaO2-

Expected partial pressure of oxygen in arterial blood (EPaO2) is defined as the expected partial pressure of oxygen in arterial blood with normal thickness and surface area of alveoli. EPaO2 is inversely proportionate to thickness and directly to surface area of alveoli. EPao2 also changes with inspired fraction of oxygen. We have observed that few physicians and critical care specialists are not considering EPaO2 particularly A-a gradient, for arterial blood gas analysis, on this basis we have prepared a calculated table of EPaO2 in relation with FiO2

Table: Variable PiO2, PaO2 and EPaO2 in relation to FiO2

Fio2	PiO2 mm of Hg	PaO2 Mm of Hg	EPaO2 Mm of Hg after A-a gradient	A-a gradient (approx.)
0.2	142	98	94	4
0.3	213	169	161	15
0.4	285	241	228	25
0.5	356	312	296	35
0.6	427	383	344	45
0.7	499	455	409	65
0.8	570	526	447	75
0.9	641	597	507	94
1.o	713	673	569	104

(there may be difference of 2-3 in A-a gradient)

These values are based on respiratory equation.

PaO2= FiO2 x (Pb-H2O) - 1/R. PaCO2

(Pb- atmospheric pressure 760,

H2O-47, PaCO2-35,

A-a gradient calculated as per, for every rise of Fio2 by 0.1 the gradient increases by 5-7 mm of Hg which is normal from 6 mm of Hg to 110 mm of Hg for FiO2, 0.2 to 1 respectively)

Hence probably equation for calculating EPaO2 taking in account A-a gradient shall be

The expected partial pressure of oxygen may be helpful in calculating ALVEOLAR DIFFUSION DAMAGE at the level of alveoli. The probable equation for EPaO2 may be as below:

EPaO2= FiO2 x (Pb-H2O) - 1/R. PaCO2 X N
OR
EPaO2 = PaO2 X N (N= constant for A-a gradient as per Fio2
0.1-0.2---- 1
0.2-0.4-----0.95
0.4-0.6------0.90
0.6-0.8-------0.85
0.8-1---------0.80, these are calculated mathematically for RQ 0.8 to 1.)

There are five factors which affect the diffusion of gases.

1. Thickness of alveoli
2. Surface area
3. Blood gas solubility
4. Partial pressure of gas
5. Molecular weight

As factor 3, 4 and 5 are constant for oxygen the diffusion of oxygen will be inversely proportionate to thickness of alveoli and directly to surface area according to FICK'S LAW.
Considering the above facts, the more is the thickness less will be diffusion of oxygen which may be used to calculate ALVOLAR DIFFUSION DAMAGE AND OUTCOME OF PATIENT.

$$ADD = \frac{EPaO2 - PaO2\ (ABG)}{EPaO2} \times 100$$

Examples:

1) A patient with FiO2 of 0.8 having PaO2 of 88 mm of Hg and Paco2 of 40, in first sight it appears a normal partial pressure of oxygen, use respiratory equation.

PaO2 = 0.8 X (740-47)-1.25X40
= 520 mm of Hg

EPaO2= PaO2 x 0.8
0.8 x520 =416

ADD = 416 - 88/88
70 % --- Alveolar diffusion damage

A patient with PaO2 -62 mm of Hg at room air for thoracotomy
PaO2= 105 and EPaO2 will be 105x0.95=99

ADD = 99- 62 / 99
40 % Alveolar diffusion damage

Application:
Assessing ABG
Assessment in preoperative period in obese and thoracic surgery
Can be incorporated in ABG machine
Assessment of prognosis on ventilator therapy

Biography:

Professor (Dr.) Nandkishore Agrawal, having more than 25 years of experience in the field with National and International exposure in research with copyrights and serving in Institute of pride ,AIIMS, Raipur, Chhattisgarh, India. Special field of interest is alveolar gas exchange and per operative management of Diabetes Melliutus for which developed two equations and software and research is going on. He believes in self and of opinion that " THE BEST SOFTWARE AVAILABLE FOR MONITORING AND ANESTHESIA IS IN THE BRAIN OF ANESTHESIOLOGIST". Always be proud to be Anesthesiologist who helpfull in relieving pain not only in surgical procedure but also due to Cancer or Neuropathic, now a days with development of Palliative care also helpful for peaceful departure.

Postoperative pain in children- Assessment and management

Vaishali Waindeskar

Professor and Head, Department of Anesthesiology and Critical Care, AIIMS Bhopal, India

Introduction: Management of postoperative pain in children being under-recognized and as a result undertreated for the long period of time. Use of the precise and valid methods for the pain assessment in children is necessary for the following pain management.
In this prospective study we have studied that the pain level depends not only on the volume of trauma after the operation, but also the localization and character of procedure.
We also tried to utilize in tables recent data from guidelines on the pain management in children and group them according to the level of postoperative pain.

Material and Methods: Different approaches have been used in the provision of sufficient level of analgesia in the postoperative period depending on the intensity of pain the patient has. This prospective study conducted, where the patients were asked to quantify their pain after 22 different surgical interventions.
So that pain management should be based not only on the level of trauma after the operation, but also the intensity of pain that they experienced.
Conclusion: The pain intensity depends not only upon the level of trauma after the operation, but also the localization and character of procedure. We can utilize the recent guidelines for the pain management in children and group them up according to the level of postoperative pain for ready reference.

Biography:

Dr Vaishali Waindeskar did her MBBS, MD Anesthesiology and has more than 25 years of experience. She is the professor of Anesthesiology and Critical Care at AIIMS Bhopal. She has worked in Cardiac, Neuro-anaesthesia and critical care in both government and private sector. She has several publications in the areas of post operative pain, preoperative assessment, airway assessment, hemodynamic variations in laparoscopic surgeries etc. and many case reports. She has been serving as an editorial board member of reputed Journals. Reviewer of many National and International Journals. Presented oral papers and lectures in various national conferences. Working in pain and palliative care and started first palliative care dept in Madhya Pradesh, India.

Respiratory management process adjustment to care given to critically-ill adult COVID-19 patients admitted to the intensive care unit tertiary healthcare facility in the Philippines

Aaron Mark R. Hernandez

Head, Intensive Care Program
Program Director, Adult Critical Care Fellowship Training Program
Asian Hospital and Medical Center, Philippines

Management of severe and critical COVID-19 disease has been challenging. Care for these patients has been difficult and mortality rates have been high. Evidence on investigational pharmacologic interventions have remained in debate and inconclusive, with clinicians needing to review risks versus benefits of therapy. Intensivists and other members of the multidisciplinary healthcare team have continued to face the COVID-19 disease with evidence still growing but still conflicting. Existing guidelines on similar disease patterns are weighted against the need and clinical conditions of the patients, with some patients needing more of a recommendation and some needing less – with a combination of interventions affecting overall survival. The COVID-19 disease has been raging in the Philippines since declaration of its first case of community transmission last March 7, 2020, overwhelming healthcare institutions around the country. A second wave, or second surge of cases was declared by the country's health department last May 20, 2020. Coincidentally, multiple guidelines have been released on the management of COVID-19 within this period, prompting clinicians to update an existing in-hospital pathway to adopt the recommendations from these local and international guidelines. This study aimed to determine whether respiratory management processes differed during the management of patients during the 1st COVID-19 surge versus the 2nd surge in the intensive care complex of a tertiary institution in the Philippines. It also aimed to determine if these differences affected survival.
This is a retrospective cohort study involving diagnosed COVID-19 patients aged 19 years and older admitted to the intensive care complex from March 1, 2020 to August 31, 2020. Patients admitted from March 1, 2020 to May 31, 2020 shall be grouped under the 1st COVID-19 surge, which patients admitted from June 1, 2020 to August 31, 2020, under the 2nd surge. Arterial blood gas parameters, mechanical ventilator settings, duration of deep sedation, days prior to initiation of neuromuscular blockage, days prior to placement to prone ventilation, days on 100% FiO2 were collected. ICU and hospital mortalities of these groups were taken and compared.

Post-infectious dengue fever complicating as guillain-barré syndrome: A case report

Uzzwal Kumar Mallick

Department of Critical Care Medicine, National Institute of Neurosciences & Hospital, Dhaka, Bangladesh

There are a few previous reports that described GBS in patients with dengue particularly in adults. I have described this case scenario of GBS that had been preceded by a proven episode of dengue fever. A 50-year-old admitted with history of numbness and pain of the bilateral upper limbs and lower limbs, with weakness of both lower limbs for last seven days. She was unable to walk as usual or get up from a squatting position. Tendon reflexes were diminished. All his sensory modalities were intact. she had a poor cough reflex, his neck muscle power was reduced. Nerve conduction studies revealed acute inflammatory demyelinating polyneuropathy. CSF study done later on day 8 of her illness showed albumincytological dissociation. My patient was started on intravenous immunoglobulin (IvIG) 0.4 g/kg/day in ICU for 5 days.

She was discharged on 15th day with full recovery of her weakness. My patient developed the weakness while having the acute infection that important role than molecular mimicry as a post-infectious sequel in the pathogenesis of dengue fever. Garg et al. reviewed 29 patients with dengue fever associated with GBS and the majority of the patients had low platelet counts while the patient is developing the weakness, suggesting that GBS was a manifestation of acute dengue fever. My patient developed the weakness while having the acute infection that important role than molecular mimicry as a post-infectious sequel in the pathogenesis of dengue fever. Neurological manifestations, pattern of electrophysiological study and the typical CSF findings were consistent with the diagnosis of GBS. In Bangladesh, where dengue is hyperendemic, patients may present to healthcare solely with unusual neurological manifestations such as GBS, myelitis or myositis, and the possibility that they might harbor dengue illness must be kept in mind of the physician.

Biography:

Dr. Uzzwal Kumar Mallick is Consultant and head of dept. of critical care medicine, National Institute of Neurosciences & Hospital, Dhaka, Bangladesh. He has published 15 papers in reputed journals and has been serving as an editorial board member of BSCCM journal. He is secretary general of Bangladesh Society of Critical Care Medicine (BSCCM).

Anesthesia for a high-risk case

Balasaheb Bande

Anesthesiologist, K. E. M. Hospital, India

An elderly male obese patient aged 70 years was admitted with bilateral osteoarthritis for TKR. He was a known smoker and COAD on treatment, uncontrolled hypertensive on treatment and diabetic, controlled on OHA. He had undergone PTCA to LAD, 6 months and was on dual antiplatelet therapy.

Detailed clinical history was obtained, and complete systemic evaluation was done. Informed high-risk consent was obtained. The evaluation included, risk analysis and scoring, investigations ie BSL, HbA1C, urinary and plasma ketones, RFTs, Serum Electrolytes, Coagulation study, CXR, ECG, VBG, PFT, 2 D Echo, USG abdomen and pelvis, Bilateral lower limb arterial and venous Doppler, besides routine investigations like CBC etc. Dual antiplatelet agents were omitted, and he was put on LMWH. His surgery was planned 5 days later. Essential lab was repeated a day before.

He was preloaded with 500ml of RL over 2 Hrs. EA catheter was placed in situ in sitting position at L 2-3 space. A test dose of lignocaine 2 %, 3 ml was given. Spinal analgesia was given with 27 FG spinal needle with heavy 0.5 % Bupivacaine 2 ml. ECG, SpO2, NIBP were monitored. Hypotension was treated with inj mephentermine. IV DNS with 6 units of inj Actrapid was given with 100 ml/hr . Additional NS was given with 250 ml/Hr. He needed minimal sedation with Inj Fenrtanyl 50 mg and Inj Midazolam 1 mg IV given after stabilizing the position for the surgery. O2 by ventimask was given 3 LPM all throughout surgery to maintain SpO2 above 95 %. TKR Procedure was uneventful. Periarticular analgesic mixture was given. Post operatively epidural analgesia was continued. He was mobilized on day 3 and discharged on Day 6.

All other aspects related to high-risk anesthesia will be discussed with reference to current scientific evidence.

Comparison of Microbial Profile and resistance pattern of Early and Late Onset Ventilator Associated Pneumonia in a Tertiary Care ICU of Bangladesh

Uzzwal Kumar Mallick[1]

[1]*Department of Critical Care Medicine, National Institute of Neurosciences & Hospital, Dhaka, Bangladesh.*

Ventilator-associated pneumonia (VAP) is defined as pneumonia that occurs 48–72 hours or thereafter following endotracheal intubation. Early-onset VAP is defined as pneumonia that occurs within 4 days of endotracheal intubation, whereas late-onset VAP is more likely caused by multidrug resistant (MDR) bacteria and emerges after 4 days of intubation. The objectives of this study were to compare the bacterial profile and resistance pattern of critically ill patients developing early onset VAP. It was a prospective cohort study conducted over a period of 24 months (July 2012 - June 2014) in an ICU of tertiary care hospital and was prospectively analyzed. Subjects were classified by ventilator status: early onset VAP (< 96 hrs of mechanical ventilation) or late-onset VAP (<96 hrs of mechanical ventilation). Baseline demographics and bacterial etiology were analyzed according to the spectrum of status of VAP. The incidence of VAP was 35.73 per 1,000 ventilator days. In our study 52% of the cases were early-onset VAP, while 48% were late-onset VAP. Acinetobacter was the commonest organism isolated from late-onset VAP ($p = 0.029$) while Pseudomonas was the commonest isolates obtained from early-onset VAP ($p = 0.046$). Klebsiella, MRSA and E. coli were almost identically distributed between groups ($p > 0.05$). There is significant difference of sensitivity pattern of Acinetobacter baumannii and pseudomonas aeruginosa in both early and late-onset VAP ($p=0.01$). The overall mortality rate in our study was 44%. The mortality was significantly higher in the late-onset VAP (62.5%) than that in the early-onset VAP (26.9%) ($p=0.011$). From, this study we conclude that late-onset VAP had poor prognosis in terms of mortality as compared to the early-onset type.

Biography

Dr. Uzzwal Kumar Mallick is Consultant and head of dept. of critical care medicine, National Institute of Neurosciences & Hospital, Dhaka, Bangladesh. He has published 15 papers in reputed journals and has been serving as an editorial board member of BSCCM journal. He is secretary general of Bangladesh Society of Critical Care Medicine (BSCCM).

Modulation of neural cell proliferation in the brain of adult zebrafish after injury and paraquat exposure.

Surendra Kumar Anand[1] and Amal Chandra Mondal[1]

[1]*Laboratory of Cellular and Molecular Neurobiology, School of Life Sciences, Jawaharlal Nehru University, New Delhi, India.*

Unlike mammals, teleost fishes, such as zebrafish exhibit profound neurogenic potential in the adult brain. Both the mammalian and zebrafish adult brains are comprised of adult neural stem cells residing in their respective neural stem cell niches in specified areas of the brain. Under normal physiological conditions, these neural stem cells are involved in constitutive neurogenesis or the daily turnover of neurons in specific brain areas, such as the hippocampal dentate gyrus and olfactory bulb in the adult mammalian brain. However, under pathological conditions, the neural stem cells may behave differently. For instance, more and more of the quiescent neural stem cells may be recruited for neurogenesis, leading to an increase in the number of proliferating neural progenitors. The mechanisms underlying such changes in cell proliferation under brain pathology are largely unknown. In this study, we have used zebrafish brain as a model to determine the potential modulation of cell proliferation by brain derived neurotrophic factor (BDNF) after stab injury. We also assessed the changes in cell proliferation in the adult zebrafish brain after paraquat treatment, which is known to enhance the risk of Parkinson's disease in humans. This study is an attempt to take us one step closer to realizing the regeneration based therapies for neurodegenerative diseases and traumatic brain injury.

Brain ecology and PMLCP

Jian Zhong Zha

Director, Wuhan Keli Institute of Women's Studies, China

The "Perfect Menopause Leading Cognitive Project" (PMLCP) is different from projects that focus on finding protective factors. Based on the construction of a relevant theoretical framework, it seeks out risk factors and tries to verify its causality.

Menopausal people need to face physical, psychological, and sociological problems in a concentrated and intensive manner. They will be under limited pressure for a long time and are at risk of excessive or even huge pressure. Sexual stress is a category of stress, which is significantly related to menopausal syndrome and is a hidden stressor, and is associated with MCI and AD through negative stress. Therefore, this group will become a high-risk group for MCI/AD.

The social support system, the social restriction system, and each individual will be the creator of the "ecology", and different ecology will produce different physiological phenomena. Aiming at the specific relationship between the brain and stress, jointly creating a brain-friendly ecology may be a path to reduce brain degradation.

PMLCP will improve the compliance of participants through "menopausal sex management" (including sex education and FSD prevention), and prevent menopause from disappearing with reproductive function and sexual function. Help participants (and spouse/partner) to activate (adapt) the lubricating system of reflex secretion and maintain (recover) regular sex life during menopause. Reduce or avoid the occurrence of negative stress (menopausal syndrome), thereby reducing the incidence of cognitive impairment.

Experience in managing patients with coronavirus infection at mass admissions.

Gulchekhra Khamraeva
Department of Anesthesiology and Intensive Care in Pediatrics, Center for the development of professional skills of medical staff under the Ministry of Health of the RUz, Uzbekistan

The COVID-19 pandemic has led not only to congestion in healthcare systems, but has also created numerous challenges and complex challenges in understanding the pathogenesis of various manifestations of COVID-19, the solution of which is of prime importance in the development of diagnostic and treatment algorithms. Particular attention among scientists is paid to the study of various mechanisms of thrombus formation, hematological aspects of the disease and the need for anticoagulant prophylaxis in patients with COVID-19. High risk factors for thromboembolic complications are: age over 60 years, history of valve replacement, chronic liver disease, programmed hemodialysis, acute kidney damage with hyperazotemia, lesion of ≥70% of lung tissue, thrombocytopenia, blood clotting time less than 3 minutes and prothrombin time less than 12 sec. The full range of invasive and non-invasive ventilation options must be considered when treating respiratory failure associated with COVID-19. Respiratory support methods differ and should depend on the severity of the illness. According to the literature, the goal of treatment should be to maintain oxygen saturation> 90%. The authors recommend High flow as a therapy for respiratory failure in COVID-19. Empiric antibiotic therapy for all groups of patients was prescribed in accordance with international protocols and WHO recommendations. With a massive admission of patients, it is necessary to have clear treatment protocols for severe and extremely serious patients. For this, it is necessary to conduct a thorough analysis of demographic and clinical characteristics, stratify survival projections, and study the causes of deaths. It is important to develop algorithms for anticoagulant, antibacterial, respiratory support and fluid therapy.

Biography

Dr. Khamraeva – PhD, Associate Professor. Specialist in Anesthesiology and Intensive Care, Chief of the Department of Anesthesiology and Intensive Care in Pediatrics of Tashkent institute postgraduate medical education. National expert of the WHO Regional Office. Co-author of the national guidelines for intensive care and management of SARI and the national guidelines for COVID-19. Member of the COVID-19 Case Management Consultant Group.

Effectiveness of nursing care bundle on prevention of ventilator associated pneumonia among mechanically ventilated patients admitted in Dhanvantri Critical Care Center, Erode, Tamil Nadu

P. Padmavathi

Principal, Dhanvantri College of Nursing, India

Background: Ventilator-associated pneumonia (VAP) is one of the most frequent nosocomial infections among ventilated patients in ICUs, associated with an increase in days of ICU stay, morbidity, and mortality. Its prevention is a significant concern in every hospital. Most of the interventions and prevention strategies are part of routine nursing care. There must be specific protocols, strategies and active surveillance in every ICU regarding the nursing care bundle.

Objectives: To determine whether the Nursing care bundle made any significant difference in Prevention of Ventilator Associated Pneumonia among mechanically ventilated patients admitted in Dhanvantri Critical Care Center, Erode, Tamil Nadu.

Methods: A quasi-experimental pre-test, post-test control group design was used. The data were collected from 40 mechanically ventilated patient of which 20 were in experimental group and 20 in control group selected by using purposive sampling technique. The total duration of the study was 30 days. Clinical Pulmonary Infection Score and Modified Mass Wisconsin Physical Comfort scale were used as tools for this study.

Findings: The major findings of the study show that in the experimental group, 9% of patient developed ventilated associated pneumonia and 74% of them were comfortable whereas in control group 19% of patients developed ventilated associated pneumonia and only 25 % of them were comfortable. The paired 't'test value was 6.83 in control group whereas in experimental group was 13.21. **Conclusion**: The study concluded that Nursing Care Bundle was effective in Prevention of ventilator associated pneumonia and improves outcomes such as ICUs length of stay, duration of ventilator support and pulmonary function. This study can be further replicated by adopting biophysiological, invitro invivo parameters for its objectivity and empirical evidence.

Critical Care Management of COVID-19 patients: Single center experience in Nepal

Rajeeb Kumar Deo, Chiranjibi Panta, Rajesh KC, Rabindra Rayamajhi

Shree Birendra Hospital, Chhauni, Kathmandu, Nepal

Nepal has also seen huge number of COVID-19 patients during pandemic. Total patients have surpassed 100,000 with more than 600 deaths till date. Shree Birendra Hospital has 20 bedded COVID ICU for management of patients needing critical care.
Total of 59 patients have been admitted in ICU till date and total death in ICU is 16, which is 27% of total admission. Only critical patients were admitted in COVID ICU and admission criteria was

respiratory rate >30, SpO2 ≤90% with supplemental oxygen and PaO2/FiO2 <300, or lung infiltrates >50%. Routine investigations done were CBC, RFT, LFT, CRP, D-dimer, ABG and HRCT chest. Treatment given was supplemental oxygen, awake prone positioning, low molecular weight heparin, steroid and remdesivir. Empirical antibiotics were given when clinically indicated.

Patients with ARDS were categorized as mild, moderate and severe as per severity. PaO2/FiO2 ratio of 200 to 300 mm Hg, 100 to≤ 200 mm Hg and ≤ 100 mmHg; with PEEP ≥ 5 cmH2O was defined as mild, moderate and severe ARDS respectively. Mild ARDS was managed with managed with CPAP or BiPAP. Patients with moderate to severe ARDS, sepsis or septic shock were managed with mechanical ventilation. Protective lung ventilaton and lower inspiratory pressures with high PEEP was done. Early proning was encouraged. Fluid management and inotropic support was done as per need to achieve MAP >65. Venous thromboembolism prophylaxis with low molecular weight heparin was given in all patients.

Biography

Dr Rajeeb Kumar Deo is Consultant Physician and Medical Oncologist in Shree Birendra Hospital, Kathmandu which is a 650 bedded tertiary care hospital for army and their family. He is Head of Department of Medicine in Nepalese Army Institute of Health Sciences (NAIHS) and is involved in various teaching and learning activities. He has more than 10 papers published in various journals which include original articles, case repots and review article in widespread field of Medicine. He has also done few poster presentations in National and International conferences. He is also member of Institutional review committee (IRC) and plays active role in management of various activities of IRC.

Epstein Barr infection leading to acute adrenal insufficiency, viral meningitis and hemolysis - A case report

Manish Mohil[1], Simant Kumar Jha[2], Veerendra Chauhan[1], Nitesh Kumar singh[2], Shiv Kumar[2]

[1]*Department of Internal Medicine, PSRI Delhi, India*
[2]*Department of Critical Care Medicine, PSRI Delhi, India*

Infections (Viral, fungal and tuberculosis) are known to cause adrenalitis leading to acute adrenal insufficiency. Though Infectious mononucleosis is self-remitting in adult but sometimes its course can be complicated by adrenal insufficiency,meningitis and haemolytic anaemia. Here we present one case of 30-year-old Indian male who presented to emergency department of our hospital with complaints of loss of appetite, generalised weakness and episodic dizziness followed by vomiting and transient loss of consciousness along with high grade fever with chill for last 4-5 days. COVID 19 RT PCR was negative. USG Abdomen done showed hepatosplenomegaly. Posterior cervical posterior lymphnodes were found on palpation. In view of persistent altered sensoriumcontrast MRI Brain was done which didn't show any abnormality. 2D ECHO done ruled out any vegetation. CECT Chest and abdomen were done which showed solitary mildly enlarged superior mediastinal adenopathyand bilateral pleural effusion. CSF analysis was suggestive of meningitis (? Viral). Inflammatory markers were high (CRP,D-DIMER & FERRITIN).ANA was negative. Both

Leptospira IGM and Scrub Typhus IGM were found to be negative. Patient also went into DIC (FDP>800) during ICU stay with decreased haemoglobin and raised PT and INR. Patient was also found to be G6PD deficient. Bone marrow biopsy report revealed mildly hypoplastic marrow for age. Patient was managed with IV Meropenem, IV Vancomycin, IV Caspofungin, IV Acyclovir, IV fluid and other supportive measures. Serum CORTISOL was found to be very low 5.35 & 6).Serum ACTH was low (<5).Endocrinologist opinion was taken and injection HYDROCORTISONE was started to which patient responded. EBV IGM was found to be positive (27.66u/ml). Later patient was discharged in astable condition.

Biography

After completing post graduation in Anaesthesiology and critical care in 2007 continuously working in critical care unit and now working as senior consultant, critical care, PSRI, New Delhi, India. ATLS (advanced trauma life support) instructor since 2011 and also FCCS Course Director and FCCS OBS instructor.More than 15 publications in both National and International journals. Also involved as investigator in various Clinical trials.Have written 8 chapters in 2 books recently published by ISCCM, India. Editor of Manual of ISCCM Trauma Management published recently in India. Invited as faculty in both National and International conferences.

Evaluation of different treatment modules for respiratory distress syndrome in preterm neonates

Rajeev kumar Mittal[1], S.P. Goyal[2], P.K. Gupta[3]

[1]*Pediatrician (Scholar), Department of Pediatrics, Subharti Medical College, Meerut, India*
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[3]*HOD, Department of Pediatrics, Subharti Medical College, Meerut, India*

Background: RDS is mainly caused by a lack of a slippery substance in the lungs called surfactant. This substance helps the lungs fill with air and keeps the air sacs from deflating. Present study is to assess the difference between intravenous and inhalational ambroxol in prevention of respiratory distress syndrome in preterm infants.

Subjects and Methods: Out of those 56 were assigned under group A i.e. being treated with intravenous ambroxol and others were assigned under group B i.e. being treated by atomizing or inhalational ambroxol. The intravenous group was injected with 15mg/kg ambroxol in umbilical vein immediately after birth followed by intravenous infusion of ambroxol 30mg/kg for 2 days.

Results: Early administration of either intravenous or atomizing ambroxol can produce a positive efficacy for the prevention of RDS in preterm infants but inhalation or atomizing has better outcomes as compared to intravenous ambroxol.

Conclusion: There are good results of aerosolized ambroxol in the management of RDS and it is the easy, economic and ideal treatment module for RDS

Pregnancy induced paralysis: And the mystery continues!

Rafia Khan[1], Anil Kumar Thakur[2]

[1] Department of Anaesthesiology and Critical Care, ESI-PGIMSR & Hospital, Basaidarapur, New Delhi-110015, India.
[2] Department of Anaesthesiology and Critical Care, ESI-PGIMSR & Hospital, Basaidarapur, New Delhi-110015, India.

Hyperemesis Gravidarum is likely to be associated with hyperthyroidism secondary to the high human chorionic gonadotropin (hCG) levels. Gestational Hyperthyroidism (GH) being the second most common thyroid disease in pregnancy after Graves' disease, occurs in up to two-thirds of women with Hyperemesis Gravidarum. Hypokalemic paralysis during pregnancy is a rare manifestation of GH, characterized by acute muscle weakness and low levels of serum potassium. The condition is promptly reversible with potassium administration.

We present a case of 38-year-old female, Gravida 3 and Abortion 2, at 14 weeks of gestation, IVF conceived twin pregnancy, presented with intractable nausea and vomiting, history of weight loss and positive urine ketones. A provisional diagnosis of Hyperemesis Gravidarum was made. Within less than 24 hours of admission the patient developed bilateral lower limb paresis which progressed to paralysis over few hours. Investigations revealed serum potassium of 2.2 mEq/L along with raised Free T3 and T4 levels and decreased TSH levels which led to a diagnosis of GH complicating as hypokalemic paralysis was made. The medical profile of the patient remitted on intravenous potassium replacement along with anti-thyroid medication. Pregnancy was continued till 37 weeks with oral potassium supplements and anti-thyroid medication with regular monitoring of serum potassium and thyroid profile. After 37 weeks of gestation, pregnancy was terminated considering it to be precious and high risk. Postpartum period was uneventful.

In conclusion, neuromuscular disorders in pregnancy pose a challenge for the clinicians. The heterogeneity of the causes makes it more difficult to diagnose and manage the underlying condition. GH as a cause of hypokalemic paralysis should always be borne in mind and the management should be supportive. Anti-thyroid drugs are required only in severe cases as GH is a transient phenomenon and resolves itself. The seemingly alarming myopathy may be amenable to simple correction of electrolytes, undetected may lead to dangerous respiratory paralysis with patient ending up on a ventilator.

Nerve regeneration therapy and its application in the field of oral and maxillofacial surgery

Pram Kumar Subramaniam[1]

[1]Oral and Maxillofacial Surgeon, Faculty of Dentistry & Sultan Ahmad Shah Medical Centre, International Islamic University Malaysia, Malaysia

In oral and maxillofacial surgical discipline context; neurological injury often occurs to the trigeminal nerve as well as facial nerve caused by trauma, pathology, infection, inflammatory, and other orofacial surgical procedures. Most attention has been devoted to the inferior alveolar nerve and lingual nerve as these nerves are commonly involved in routine dental procedures such as anesthetics block, root canal therapy, dental implant surgery and surgical removal of third molars or wisdom tooth. Side effect of these injuries ranges from anaesthesia, dysesthesia, paresthesia, facial paresis and even paralysis.

Various surgical and non-surgical options are available to treat the above said conditions in order to allow repair and regeneration of the peripheral branches of facial and trigeminal nerves so as to improve the quality of life for patients. Surgical options include direct primary repair such neurorrhaphy via end-to-end approximation, biological and synthetic conduit-based guided regeneration or graft bridging and even coaptation. Non-surgical treatment is used as means to facilitate faster nerve end growth or axonal regeneration such as protein therapy, laser phototherapy and low frequency electric stimulation therapy.

This presentation attempts to discuss the use of different options of nerve regeneration therapy and its relevance in the field of oral and maxillofacial surgery.

Covid-19 impact on chronic pain patient and its solution

Endang Mutiawati[1]

[1]Pain and Headache Consultant, Department of Neurology Faculty of Medicine Syiah Kuala University, RSUD Dr. Zainoel Abidin, Indonesia

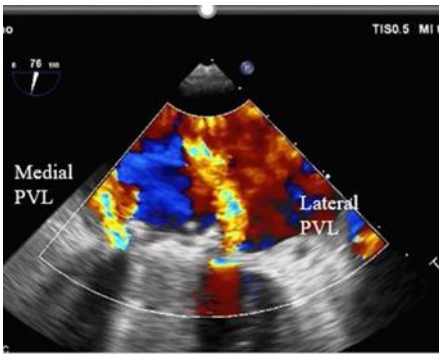
Covid-19 pandemic compels people to follow strict health protocol, such as social distancing, always wear a mask, regularly wash your hands, stay at home, and keeping good health condition. Chronic pain patient regularly requires physician consultation, medication, physiotherapy, imaging and blood test, making them visiting health center more often to maintain life quality.
This presentation will explain covid-19 pandemic impact on many aspects of chronic pain patient, and the solution used by many countries.
Covid-19 pandemic has urged a better and comprehensive health service in chronic pain management, with implementation of health safety protocol to avoid Covid-19 infection.

Recurrence of mitral paravalvular leak. It is transcatheter closure always the best option?

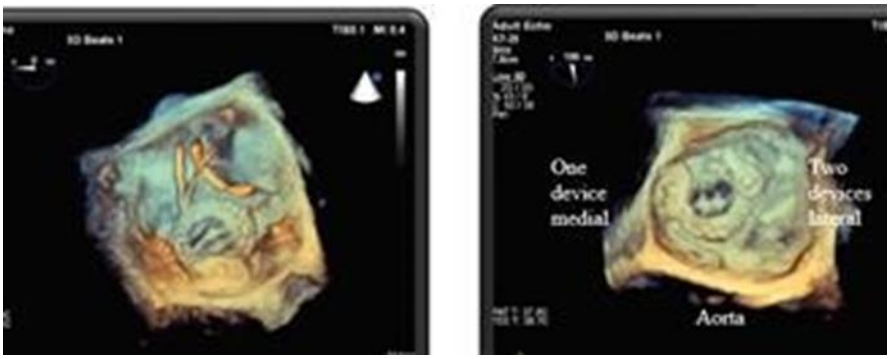
Carmen Maria Moldovan[1], Emmanouil Vavuranakis[2]

[1]*Department of Cardiology, Slagelse University Hospital, Denmark*
[2] *Department of Cardiology, University of Athens, Greece*

A 47-year-old male patient presented with severe dyspnea and severe hemolysis.
He had mitral valve surgery with finger dilation at young age, due to rheumatic disease. He underwent AVR and MVR in 2010 because of endocarditis and redo surgery on both valves with a Sorin 21 mm valve in the aortic position and Sorin 23 mm valve in the mitral position due to PVLs in 2012. Four years later in 2016 he was extremely ill with peripheral edema, excessive ascites, RV dysfunction, pulmonary hypertension, low output symptoms, chronic kidney disease, on high dose of diuretics and with extremely high surgical risk. A T.O.E. showed two localized mitral paravalvular leaks.

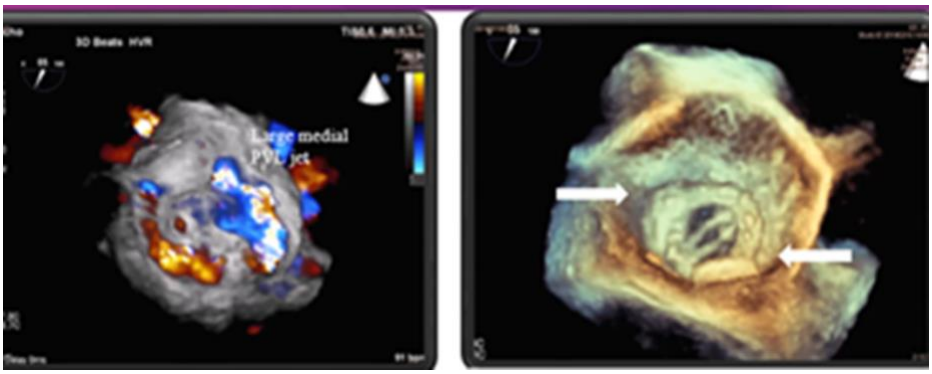


We started with the medial defect and we implanted one Vascular Plug device transapical. The lateral leak was larger so we decided to implant two VP III devices. Initially, the first device was deployed but not released. After that, a second device was deployed with final simultaneous release of both devices and a very good result.

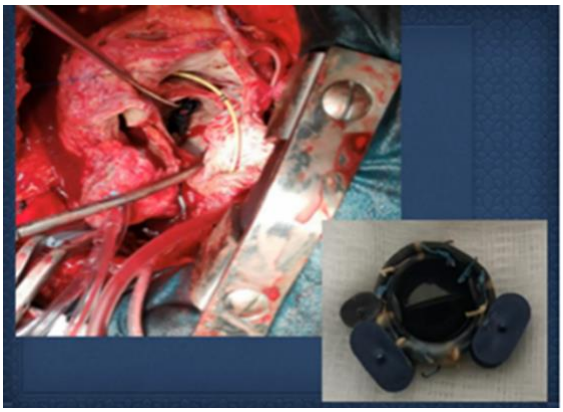


Two years later, our patient presented with severe hemolysis, hypotension and dyspnea due to LV volume overload.

A new TOE revealed a new large medial mitral paravalvular leak defect and two small aortic paravalvular defects at the noncoronary and at the left coronary cusps. The devices were in place and no vegetation was seen.



We had recurrence of mitral paravalvular leak at the aortic and at the mitral position in a high risk patient with two thoracotomies and one transapical Transcatheter PVL closure. Very high surgical risk patient. Maybe repeat surgery, even at a high risk could be the best option?



Biography

Carmen Maria Moldovan is a cardiologist, interventional echocardiographer with PhD from Athens University, Greece. He is participating all the percutaneous structural heart disease procedure, such as Mitral and Tricuspid Clip Implantation, Paravalvular leak Closure, ASD/PFO closure, Left Atrial Appendage Closure, TAVI. From last one year, he is working in Slagelse University Hospital, Denmark. he has participated and gave lectures in international congresses, such as EuroPCR, PCR London Valves, CSI Frankfurt. He is a member of the PVL working group, Paris, France. His research activity is focus on established interventional techniques as well as innovated modalities applied to current cardiology and he has over 30 publications.

Strategies on cardiac parameters among patients with hypotension

Ms. Janani Eswaran
Incharge of Clinical Critical Care, Dhanvantri Multi Speciality Hospitals, Erode, India

Background: Hypotension refers to an abnormally low blood pressure (BP) below 80/60. The roll of nursing in treating the patients with hypotension is having a lot of importance. A meticulous statistical analysis of a large nationwide database concerning. **Objectives:** To assess the effectiveness of Nursing Strategies on cardiac parameters among patients with hypotension admitted in Dhanvantri Critical Care Centre, Erode. **Design:** Quasi-Experimental design, were pre and post test Non equivalent group design. **Setting:** Dhanvantri Critical Care Centre, Erode**. Methods:** Out of 30 patients, 20 patients were selected as Experimental Group and 10 patients were selected as control group by using purposive sampling technique. Level of cardiac function was measured by cardiac parameters observational scale before and after the procedure. **Results:** Scores in cardiac function shows, post test 80% of patients had moderate level of cardiac function in control group whereas on experimental group 95% of patients had normal level of cardiac function. The patient's level of cardiac parameters improved from the mean value of 12.7±1.59 to 12.5 ±2.18 in control group and 11.8±2.07 to 19.2±2.66 in experimental group respectively. Paired 'd' test score was 3.462 and 27.49 in control and experimental group. Unpaired 't' test score was 5.44 . which us significantly effective at $p<0.05$. Chi square test showed only associated disease in experimental group have significant association ($p<0.05$) and other demographic variables (age, gender , status of conscious and occupation) have to significant ($p<0.05$) association with post test score of level of cardiac functions in both control and experimental group.

Conclusion: The findings of the study reveal that fluid therapy and passive leg raising is more effectiveness and no side effect, it is improving the level of cardiac function among patients with hypotension.

Extremity Osterosarcoma (O.S.): Evolution From Primary Amputation to Mainly Limb Salvage Surgery (LSS)

B. N. Rao, M. Neel, A. Davidoff, A. Murphy, L. Talbot, Abdel Hafeez, S. Murphy, L. Ghawji
Department of Surgery, St. Jude Children's Research Hospital, USA

The management of bone tumors has evolved significantly over the past 3-4 decades. Whereas amputation was the cornerstone of care (still appropriate in certain circumstances), LSS, Limb Salvage Surgery, is now the surgery of choice, influenced by the overt success in the early 70's at Memorial Hospital (N.Y) using neoadjuvant chemotherapy (Rosen) followed by LSS (Marcove). This initial success was further enhanced by changes in diagnostic Imaging, early rehabilitation, specialized nursing, and adequate pain control.

In 1980's we initiated LSS utilizing a strict criteria: a) age >13 years or having attained 75%of anticipated growth, b) small extraosseous component, c) <50%intraosseus involvement, and d) no metastasis. With an

initial local control rate of @ 93% (134 patients) we elect to offer LSS to all children. Our institution has performed LSS in 355 out of the 388 enrolled patients. Ages ranged from 3-30 years (median 10.8 years) with a slight male predominance (52%). Most common site was the femur (171 patients), with an average resection length of 7cm (range 3-38 cm). Intraoperative/postoperative complications noted include: a) Hemorrhage (>10% of Blood Volume) in 25 patients, b) transient neuropathy (radial or peroneal) in 28 patients, c) deep seated infections in 9 (2 required amputation), d) superficial infections in 45 (19 of who required secondary closure). Reconstruction in ~95% of cases involved endoprostheses and rehabilitation and was initiated within 48 hours. 95% of the patients were discharged within a week. Late complications noted include stem fractures (5%, or 18 cases), loosening, and local relapse in 3 patients.

LSS is amenable in 95% of cases. Complications are rare and early rehabilitation is the key to success. Disadvantages include no contact sports, loosening, implant fracture, and revisions due to continued growth.

Biography

Dr Rao completed his undergraduate education 1955. He completed his Medical training in 1962. Following this he started his surgical training in Grant Medical College in Mumbai. Dr Rao came to the USA in April 1963 in as an intern in Altoona, Pa. followed by a surgical residency in Fargo, North Dakota. In 1966 Dr Rao went to the United Kingdom for his Fellowship in Surgery (F.R.C.S.). While studying for exams he also worked as a Senior Registrar for two years at Heatherwood Hospital in Ascot (which is known for its horse racing).

Following a surgical residency, he continued at MSKCC for his fellowship, followed by stints in Thoracic Surgery, Immunology, and Pediatric Surgery. In 1976 Dr Rao joined the faculty as a junior Pediatric Surgeon. Dr Rao was recruited by St Jude Children's Research Hospital in 1980 to become its first Chief of Pediatric Surgical Oncology and to initiate a limb salvage program for both skeletal and soft tissue sarcomas.

Dr Rao has authored/coauthored over 220 peer reviewed articles, given over 700 oral presentations in pediatric cancer across the USA and the world, and has over 600 abstracts to his credit.

Dr Rao has trained over 100 residents/fellows in Pediatric Surgical Oncology over the past 44 years and is the past president of the Memphis Surgical Society and I.P.S.O.

Caregiving of a special needs individual who developed early onset dementia

Tahiera Monique Brown
CEO, Darkness To Light Films, USA

Caregivers face many challenges navigating the system with a special needs individual from birth to death. Tahiera’s parents died young leaving behind a special needs sibling. Tahiera will talk about the challenges she faced as a caregiver to her special needs sister Gussie Grant, born with Cerebral Palsy, Prada Willi Syndrome and Epilepsy. Gussie developed early onset dementia by the time she was twenty-nine years old. Realizing that the voices of the caregivers should be heard during medical care, Tahiera began to record her daily routine and challenges to care for her sibling which aided her in explaining to medical doctors her sibling’s condition as Gussie faced End Stage Alzheimer’s.

Biography

Tahiera Monique Brown is the CEO of Darkness To Light Films. She is a professional speaker on the issues of domestic violence, child trafficking, the trafficking of the elderly and handicapped and stalking. She has written a memoir called, Annihilator of Innocence based on her life as a hostage for two years. She's in development on a film called, The Prayer based on her memoir. Tahiera has a nonprofit called The Interlocking of Arms: The Gussie Grant Foundation.

Delirium – An intriguing and far-reaching problem in the perioperative and critical care setting

Matthew Scott Vandiver
Assistant Professor, University of California Los Angeles, USA

Delirium is a common and serious complication of both surgical stress and ICU admission which is associated with many important clinical outcomes including increased days of mechanical ventilation, increased length of stay (LOS), increased healthcare costs, and increasingly recognized long-term cognitive impairment. Cognitive dysfunction noted after intensive care unit associated delirium has been shown to be similar in the level of deficit to that of moderate traumatic brain injury and has even been shown to be associated with the worsening of existing dementia. Multiple pathophysiological mechanisms have been proposed including neuroinflammation, tau related pathology, and structural changes including hippocampal atrophy. With the SARS-CoV-2 pandemic and its associated microvascular and systemic inflammatory response, there is significant concern for increased levels of cognitive dysfunction following ICU admission in these patients further straining our healthcare systems.

Our attempts at delirium prevention mostly revolve around multicomponent interventions such as environmental modifications and medication adjustments and while we currently possess multiple useful tools to screen for delirium such as the CAM-ICU based tool, the identification of those patients at the highest risk is still a work in progress. The rapid identification and intervention for patients at risk of delirium is a priority for the modern intensive care unit and the identification of the mechanistic underpinnings of the various causes of delirium is a research priority. Here we discuss the current best practices for combating delirium and some of our forays into the best mechanistic understandings of the disease processes.

Biography

Dr. Vandiver is currently an Assistant Professor-In-Residence at the University of California Los Angeles. He completed his M.D. and Ph.D. degrees at the Johns Hopkins University School of Medicine and completed his thesis work with Dr. Solomon Snyder in the department of neuroscience focusing on signaling in neurodegenerative diseases. Dr. Vandiver underwent training in anesthesiology, completing his residency at the Johns Hopkins Hospital and critical care fellowship at UCLA. He is now focused on clinical care in the ICU and OR setting and his research focuses on perioperative cognitive dysfunction, delirium, and their underlying mechanisms.

Use of alkaline phosphatase in critically-ill patients

Zohra Malik[1] , Zareen Razaq[2]

[1]Department of Internal Medicine, Saint John's Episcopal Hospital, New York, USA
[2]Department of Medicine, Ghurki Trust, Lahore, Pakistan

Most of the patients admitted to ICU undergo organ damage, with kidney injury, liver damage, respiratory distress and hematological derangements being the most common. We hereby present literature review on the use of Alkaline Phosphatase (ALP) in critically ill patients with severe sepsis causing kidney injury. The possible cause of kidney injury is inflammation and hypoxia. ALP may prevent the effects of inflammation and hypoxia through dephosphorylation of lipopolysaccharide (LPS) and extracellular ATP, the latter being converted to adenosine, an anti-inflammatory and tissue-protective signaling molecule. The anti-inflammatory effects of ALP on LPS-induced systemic inflammation is the proposed mechanism. ALP detoxifies LPS and the dephosphorylated LPS is far less toxic. LPS can be dephosphorylated by ALP as shown by various experiments and this eventually improves survival. ALP is proposed to reduce fever and attenuate the systemic cytokine response, serum nitric oxide levels, and prevent liver and lung damage. ALP is also shown through animal experiments to reduce TNF-a response, reduce IL-6 concentration, improve gas exchange during septic shock. An animal experiment was conducted, which showed if we give an ALP inhibitor (L-phenylalanine), the serum LPS levels significantly increase, causing the pathogenesis of septic shock. TLR (toll-like receptor), plays an important role in pathogen recognition and activation of the innate immunity. ALP seems to interact with the LPS-TLR pathway. The LPS induces an increase in NF-kB activity which seems to be attenuated in the cells that were pre-treated with ALP. The pro-inflammatory molecule, Resolvin-E1 reduces LPS induced NF-kB activity. which is mediated through de-phosphorylation and thereby detoxification of LPS. So, if we can attenuate the circulating LPS and cytokine levels by ALP, we can prevent renal hypoxia and AKI. Restoration of ALP might be an evident solution to preventing kidney and other organ injury.

Biography:

Malik is a 2nd year Internal Medicine Resident at Saint John's Episcopal Hospital in New York, USA. She is interested in pursuing hematology/oncology fellowship after her residency. She has research experience and published many case reports/abstracts/posters and serves as a peer review editorial board in a number of journals and is currently working on various meta-analysis.

E-POSTER SESSIONS & ABSTRACTS

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DAY 2

2020 WORLD HEART AND CARDIOTHORACIC SURGERY CONFERENCE
2020 WORLD NEUROSCIENCE, PSYCHIATRY & DEMENTIA CONFERENCE
2020 WORLD CRITICAL CARE AND ANESTHESIOLOGY CONFERENCE,
2020 WORLD PEDIATRICS CONFERENCE

Title: Massive thoracic aortic aneurysm causing extrinsic coronary artery bypass graft compression: A case report on a rare cause for ACS

Samuel Hawthorne
Department of Vascular Surgery, Royal Melbourne Hospital, Parkville 3050, Victoria, Australia

Title: Using slow low-efficiency daily dialysis or intermittent haemodialysis as a continuous renal replacement therapy alternative in an intensive care unit during the COVID 19 pandemic: A case series

Boampomaa Marilyn
Department of Intensive care, Lister Hospital, Stevenage, UK

Title: Meningioma in Male to Female Transgender Using Hormone Replacement Therapy

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General Practitioner, North Sumatera University, Medan, Indonesia

Title: The treatment Alzheimer's Disease by liposomal drug

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Title: Comparison of knowledge, attitude, social and financial burden, and mental health disorders of COVID-19 pandemic between general population and health care workers in Egypt.

Mohamed A. Khashbah4

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Poster Abstracts:

Massive thoracic aortic aneurysm causing extrinsic coronary artery bypass graft compression: A case report on a rare cause for ACS

Samuel Hawthorne[1]

[1]*Department of Vascular Surgery, Royal Melbourne Hospital, Parkville 3050, Victoria, Australia*

Introduction: Chest pain is one of the leading causes for emergency department presentations, of which 10-15% will be due to acute coronary syndrome (ACS). While the vast majority of such presentations are due to intraluminal coronary artery issues, rarely it can be caused by extraluminal pathology.

Case report: An 85yo male presented to the emergency department with a three-week history of worsening left-sided chest pain. On examination, the patient had a soft pansystolic murmur and bibasal pulmonary crepitations. His ECG showed widespread ST depression, with ST elevation in aVF, and had a serum troponin I of 1690ng/L (ref: <26ng/L. An AP chest X-ray showed near complete opacification of the left lung field, which was clarified further with a CT angiogram as a 111 by 103mm saccular aneurysm of the aortic arch progressing inferoanteriorly from the isthmus proximal to the left subclavian artery origin toward the mediastinum. The aorto-left circumflex radial artery bypass graft was shown to opacify at its origin but no filling was seen after compression by the aneurysm. Due to the position of the aneurysm, a thoracic endovascular aneurysm repair was not possible without occluding the left subclavian and left common carotid arteries. As the patient was not deemed medically stable enough to tolerate an open or hybrid surgical repair in the setting of their age and comorbidities, and a conservative approach was taken in agreement with the patient and their family and was discharged home with community palliative care input.

Discussion: While rare, extrinsic coronary compression can cause ACS. Surgical management is indicated where able however would require tertiary level care. This emphasises the importance of a simple chest x-ray as a part of emergency chest pain work-up to exclude more unusual causes of such a common presentation.

Using slow low-efficiency daily dialysis or intermittent haemodialysis as a continuous renal replacement therapy alternative in an intensive care unit during the COVID 19 pandemic: A case series

Boampomaa Marilyn[1], Nimaiyar Harsh[1], Bramall Jon[1]
[1]*Department of Intensive care, Lister Hospital, Stevenage, UK*

In patients with severe COVID-19 infection resulting in intensive care admission, the incidence of acute kidney injury (AKI) has been estimated at 14.5-50%. A large subset of these patients require renal replacement therapy, with continuous renal replacement therapy (CRRT) being the modality of choice in the majority of intensive care units (ICUs). In the UK we observed a national shortage in access to CRRT during the first wave of the COVID-19 pandemic. Here we present a case series of 11 patients in whom we used slow low-efficiency daily dialysis (SLEDD) and intermittent haemodialysis (IHD) as an alternative to CRRT (CVVHF) in a district general ICU. Given our small case sample, we aim mainly to highlight the practicalities of setting up SLEDD/IHD in ICUs in which CRRT is the main modality.

Pertinent to the critically ill patient, SLEDD and IHD have the benefit of shorter dialysis. This accommodates patient rehabilitation allowing for easier coordination of transfer to scans, physiotherapy and mobilisation. However, given the unfamiliarity with operating SLEDD/ IHD in ICU, successful set up requires an organised multidisciplinary approach. These modalities are therefore limited by the availability of the renal team, mainly the dialysis nurse. In addition, there may be significant cost implications as access to reverse osmosis system in the ICU bed space is required. With time and further education ICU nurses can operate these modes of dialysis removing the availability of the dialysis nurse as a limiting factor.

Meningioma in Male to Female Transgender Using Hormone Replacement Therapy

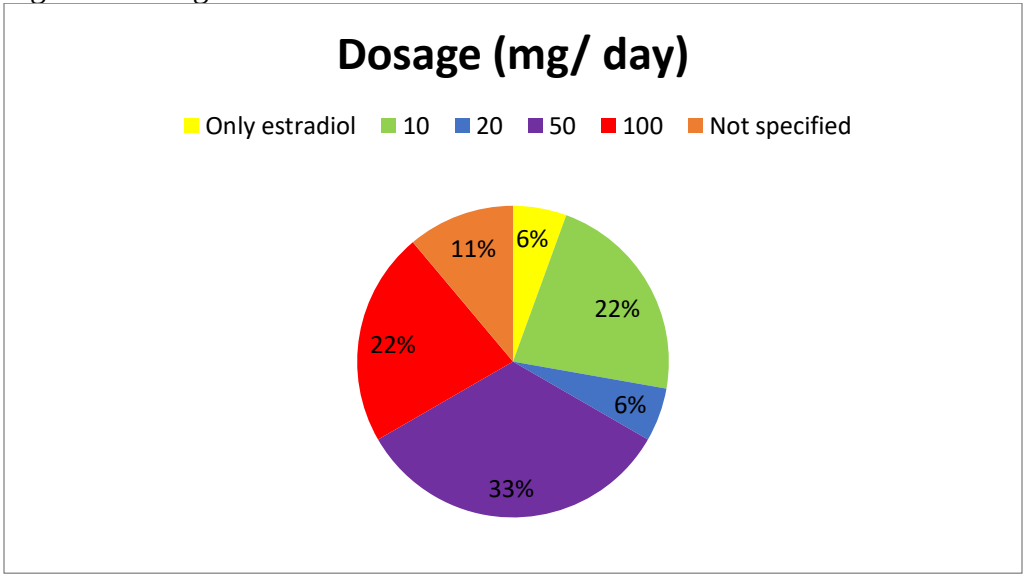
Grace Elizabeth Romorani Sigumonrong[1]
[1]General Practitioner, North Sumatera University, Medan, Indonesia

Transgender frequently has Hormone Replacement Therapy (HRT) in order to alter their physical appearance to suit their affirmed gender. However, HRT may be an independent risk factor in developing meningioma. Until this day, there is a lack of studies on the incidence of meningioma and recommendations on estrogen and cyproterone acetate (CPA) in transgender. A systematic search for published observational studies was independently conducted on PubMed, Cochrane and Google Scholar from 2010 until 2020. The risk of bias was evaluated using the Newcastle-Ottawa quality assessment. A total of 132 articles were screened, resulting in 10 articles with a total of 18 meningioma cases. Various variables were assessed including age, duration and dose of HRT (combination of estrogen hormone and CPA). Average age of respondents was 51. 61 years old, with duration of HRT was 4-39 years (Table 1). Estrogen hormone therapy was used in various doses (1mg, 1.25g, 2g, etc) depending on the route of administration (patch, oral, gel) and the majority is combined with CPA. The most widely used dose of CPA is 50 mg/day (Figure 1). The location of meningioma varied with the most frequent histological feature was WHO grade I with high level of progesterone receptor expression and lower level expression of estrogen receptors Evidence-based recommendations on dosage as well as route of administrations for HRT in order to minimize its side effects including meningioma, must be further investigated on male to female transgender, considering the continuous usage of HRT.

Table 1. Respondent’s age and duration of HRT

	Mean	Std. Deviation	Range
Age (years)	51.61	9.51	35-66
Duration (years)	13.61	8.71	4-39

Figure 1. Dosage of CPA



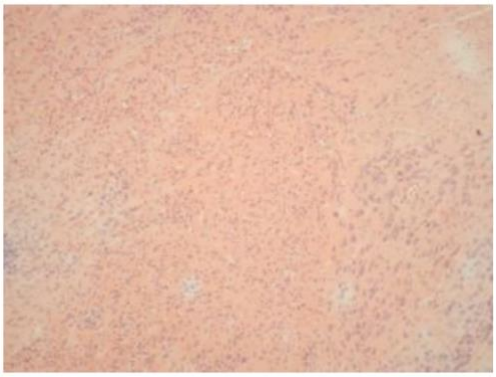
The treatment Alzheimer's Disease by liposomal drug

Nina Ivanova, Margarita Gevorkova

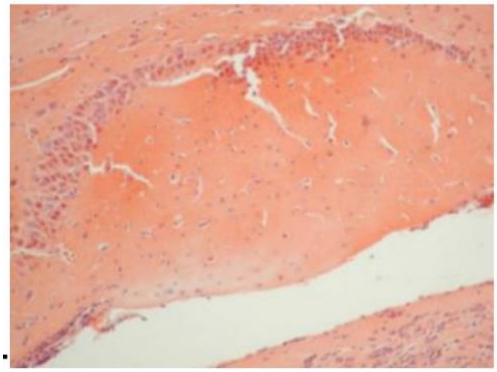
SE "Institute of Dermatology and Venerology of Medical Science", Ukraine

The key event leading to Alzheimer's Disease appears to be the formation of a peptide known as beta amyloid which clusters into amyloid plaques on the blood vessels and on the outside surface of neurons of the brain – which ultimately leads to the killing of neurons. Many medical products do not reach a brain. But loaded liposomes just as nanoparticles, can to cross the hemato-encephalic barrier and "pulling through" their content through the blood-brain barrier. We have developed the composition and the technology of the preparation for treatment Alzheimer's Disease. The preparation is liposomal specific original drug. Liposomes obtained from a mixture of original negatively charged lipids. The researches of the preparation for the treatment Alzheimer's Disease have been carried out in vivo on the experimental animals with induced Alzheimer's disease (we have Certificate of Committee on bioethics and deontology). The liposomal preparation delivered to the brain directly contribute to "pulling through" the specific original drug through the blood–brain barrier. In addition, the original drug in liposomes can prevent of the beta amyloid's aggregations into the amyloid plaques in vivo. The two-time administration of our preparation to the experimental animals with induced Alzheimer's disease prevented the formation of amyloid plaques (picture 1). In control group of animals with induced

Alzheimer's disease without treatment you can see the formed amyloid plaque with signs of death of border neurocytes in the wall and tissue of cerebral arteries (picture 2)



Picture 1



Picture 2

Conclusions: Our loaded liposomal preparation is nontoxic, prevents and treatments of Alzheimer's Disease. As much as possible positive therapeutic effect has been reached: 98 % of the animals with induced Alzheimer's were healthy after two injections of the preparation.

Mania and psychosis induced by the pre-medication regimen for ocrelizumab for treatment of primary progressive multiple sclerosis, a cautionary tale to C-L psychiatrists and neurologists

Jeremy Ying MD[1], Gregory Malzberg MD[1]
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A 32-year-old man, employed as an attorney, with a past psychiatric history of ADHD and daily cannabis use, diagnosed with multiple sclerosis 1 month prior, presented to the emergency room with paranoia and persecutory delusions. In a state of distress, he fled his home, discarded his belongings, and travelled through the city for 36 hours believing he was on a mission for the CIA. According to collateral, his symptoms had started one month prior when he had undergone two infusions of ocrelizumab. He was admitted to medicine for further workup including lumbar puncture and MRI which were not revealing. On hospital day 4, upon transfer to the psychiatric unit, we first learned from his wife that administration of ocrelizumab was preceded by infusions of methylprednisolone. For acute mania with psychosis, patient was stabilized with risperidone, valproic acid, and clonazepam, subsequently discharged for outpatient medication management after 24-day admission. The case at its surface illustrates an academic debate of etiology. At the interdisciplinary level, the case is an argument for integration of care between Psychiatry and Neurology in the outpatient setting. This highly-functional person suffered a debilitating manic episode that may have been avoided. A collaboration between the two specialties could have

resulted in more cautious use of steroids. Furthermore, IV methylprednisolone prior to infusion of monoclonal antibody is not routinely discussed in fields outside of demyelinating disease posing another challenge to C-L psychiatrists. With increasing use of ocrelizumab and other monoclonal antibodies for MS, the information of what is being administered as pre-medications should be disseminated and discussed in an interdisciplinary setting. The co-administration of IV methylprednisolone with ocrelizumab should not be overlooked by C-L psychiatrists in determination of etiologies for a manic episode in patients with multiple sclerosis. Improved communication between specialties will lead to improved patient care.

Mental Health of Addicts Before and after Rehabilitation

Yash Badal[1] ; Mansi Saxena[2]

[1]Recovery Coach, Lifestyle & Fitness Trainer
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Drug abuse is self-administration of a drug for non-medical reasons, in quantities and frequencies which may impair an individuals' ability to function effectively, and which may result in social, physical, or emotional harm. Alcohol is a drug and may be classified as a sedative, tranquilizer, hypnotic, or anesthetic, depending upon the quantity consumed. Alcohol produces psychic dependence of varying degrees from mild to severe. Physical dependence develops slowly over time. Alcoholism is a part of the substance-related disorder and serves as an important etiological factor in suicide, accidents, injuries, and deaths due to violence caused by the excessive consumption of alcohol. The motive of this study was to analyze the efficacy of treatment and duration of rehabilitation. A sample of 20 individuals was taken, who were categorized as per the four phases of alcoholism that is, 1) pre alcoholic, 2) early phase, 3) crucial phase and 4) chronic phase. The mental status was evaluated using different mental health scales. Each patient was treated for 15 to 20 sessions over a period of 2-3 months. The treatment approach which was incorporated was a combination of biological and behavioral therapy, which includes psychodynamic approach and cognitive behavioral therapy which is based on meditation, motivation, and various forms of physical exercise. The therapy worked effectively for those patients who were either pre-alcoholic, early phase, or initial stage of crucial phase but chronic phase patients needed pharmacological and adjunctive therapies as well. Though the mild form of pharmacological intervention is required in initial phases too, to overcome withdrawal symptoms and craving.

Index Terms: Alcohol, Addiction, Mental Health, Rehabilitation

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Comparative evaluation of ease of orotracheal intubation using non-handle mounted video laryngoscope versus handle mounted video laryngoscope in patients undergoing elective surgeries

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The major causes of morbidity and mortality encountered in anaesthetic practice are difficult and failed intubations. The development of video laryngoscopy is the most important change in the field of Anaesthesiology. Video laryngoscopes are the new intubation devices, which contain miniature video cameras, enabling the operator to visualize the glottis indirectly. Recently, video laryngoscopes have shown to improve glottic exposure and the ease of intubation when compared with direct laryngoscopes.

This study was commenced with the primary objective of assessment of ease of orotracheal intubation using both, the C-MAC® (Non-Handle mounted) and the McGRATH® MAC (Handle mounted) video laryngoscope. A total of 60 patients of either sex, aged between 18-60 years, ASA-I & II, and having Mallampati grade of 1 and 2, requiring orotracheal intubation were enrolled for the study. Cormack-Lehane grading, the proportion of intubation success, the hemodynamic responses to intubation, and complications if any, with the two video laryngoscopes, comprised of the secondary objectives of the study. The study results revealed that it was significantly easier to perform orotracheal intubation with the C-MAC® video laryngoscope when compared with the McGRATH® MAC video laryngoscope. The C-MAC® video laryngoscope also provided more grade I laryngoscopic views and more successful orotracheal intubations when compared with the McGRATH® MAC video laryngoscope. Though no statistically significant differences were recorded in the grade I laryngoscopic view, the proportion of intubation success, changes in hemodynamic responses, and the number of complications between the two video laryngoscopes.

In the era of evidence-based medicine, the efficacy and safety of each video laryngoscope should be compared with a conventional direct laryngoscope, with the other video laryngoscopes, and with the other types of intubation devices. Hence, this study was conducted to make a comparison between two video laryngoscopes, that is, C-MAC® and the McGRATH® MAC video laryngoscope.

Interaction of heart rate variability and indicators of the hemostasis system after coronavirus infection (COVID-19)

Gulchekhra Khamraeva[1] , Mukhlisa Khidoyatova2

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The spread of coronavirus infection (COVID-19) poses a particular danger in relation to specific damage to the cardiovascular system, especially in the case of a severe course of coronavirus

infection and a high risk of unfavorable cardiovascular outcomes. In addition, the problem is aggravated by the potentially possible the arrhythmogenic cardiotoxicity of a number of drugs prescribed for the treatment of COVID-19. All this requires maximum vigilance in the treatment of patients with COVID-19, long-term follow-up and the timely use of various diagnostic methods in order to prevent early and late cardiovascular complications (CVC). Analysis of heart rate variability showed that patients after coronavirus infection have hyperactivation of the sympathetic nervous system (SNS), which is expressed in an increase in the activity of the sympathetic nervous system with persistent disruption of the circadian interactions of the links of the autonomic nervous system, manifested in an increase in sympathetic influences on the heart rhythm and an insufficient increase in the activity of the parasympathetic nervous system in night time. According to the indicators of hemostasis, the patients showed a significant increase in Prothrombin Time Index, prolonged Thrombin Time. COVID-19 leads to changes in hemostasis and promotes hyperactivation of the SNS, a "vicious circle" is created and both processes exacerbate each other. As a result, the thrombotic process and the risk of cardiovascular diseases were increased. The severity of the process was associated with excess body weight, which, possibly, is the reason for frequent CVC in this category of people with COVID-19. It is necessary to carry out dynamic monitoring of hemostasis indicators after being discharged from the hospital, in order to prevent adverse of cardiovascular complications.

The prognosis of outcomes in patients with traumatic brain injury (TBI) in the acute period

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40 patients with TBI (32 men and 8 women) with an initial GCS score ≤ 8 were included in a prospective study. The mean age was 35.7 ± 8.2 years. All examined patients were divided into 3 groups: I group - patients with fatal outcome - 9 patients (3-5 points on GCS), II group - 22 patients survived with good outcome (GCS ≥ 10 points) and group III - 9 patients with worse neurological status (GCS <10 points).

Heart rate variability (HRV) analysis was performed in two methods: temporal and spectral analysis. We have compared the data of patients with HRS who died with HRV indices in the surviving patients on the day after the injury. We compared the rates studied patients who survived with good outcome (GCS ≥ 10 points) and in patients with a worse neurological status (GCS ≥ 10 points) and in patients with a worse neurological status (GCS <10 points).

Results: The day after the injury showed a significant difference in parameters of HRV in patients who died with progressive brain edema regarding survivors. In the group who died there was a significant parasympathetic efferent hyperactivity and a tendency to decrease throughout the HRV.

The group with poor recovery had a tendency towards low heart rate variability, suggesting a lower parasympathetic efferent activity. Hemodynamic parameters were not different between groups.

When comparing patients who died within 5 days after injury with those surviving the next day after receiving head trauma, significant increase in heart rate variability was associated with a increased parasympathetic tone.

The rate decreased LnLF below physiological values, and these changes were similar in all groups. Because of the tendency to a lower level of the ratio LF\HF in the group died, we hypothesized that the relatively high LnLF observed in this group was associated with increased parasympathetic tone. Overall HRV differed significantly between the groups of survivors. Overall HRV was normal in patients with a GCS score of ≥ 10 and significantly decreased in patients with GCS <10.

Conclusions: Reduced heart rate variability is associated with a worse clinical outcome and severe cerebral lesions.

Comparison of knowledge, attitude, social and financial burden, and mental health disorders of COVID-19 pandemic between general population and health care workers in Egypt.

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[2] *Department of Tropical Medicine and Gastroenterology, Faculty of Medicine, Assiut University, Assiut, Egypt.*
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Introduction: The global devastating effect of COVID-19 has caused anxiety and fear to variable extent among the public. knowledge and attitudes towards infectious diseases are associated with variable levels of a panic sensation among the public, which can subsequently impact prevention of the spread of the disease. COVID-19 pandemic necessitates evaluating these domains among the Egyptian population. The limited resources of the Egyptian health care system, infection control precautions, reduced rate of testing for COVID19, and the overall reduced level of public education could add to the psychological impact of the pandemic among the Egyptian population relative to other populations.

Material and Methods: This study was conducted using a semi-structured online questionnaire in May 2020. Data on demographic features, socioeconomic scale, knowledge, attitude, and social and financial burden regarding covid-19 and the effect on different aspects of life were collected. Assessment was done using Beck's anxiety Inventory, Beck's Depression Inventory, and Yale-Brown Obsessive-Compulsive Scale. We divided participants into non-health care workers (non-HCWs) and HCWs groups.

Results: There were 524 participants. Most of the participants were females, middle age and middle socioeconomic class. Most participants had good knowledge about COVID-19 and positive attitude towards protective measures particularly in HCWs with negative impact on different aspects of life. HCWS had higher frequency of anxiety (32%) and OCD (29%) than non-HCWs while non-HCWs had higher depression rate (69%). HCWs had higher rates of severe depression (20.5%) with moderate and severe OCD (4.9%, 1.6% respectively) than non-HCWs. Females, young age, urban residence, students, smoking, history of medical illness, low socioeconomic class were risk factors.

Conclusion: The knowledge of COVID 19 in HCWs were better than non-HCWs. Fear, social, and financial burden of COVID-19 were almost equal in both groups. COVID 19 have a major effect on the anxiety, depression, and OCD in both groups.

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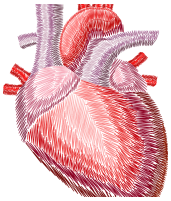

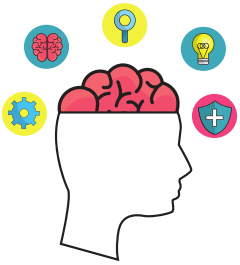

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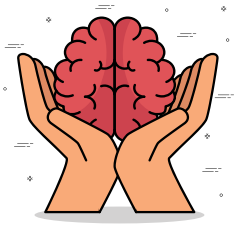

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