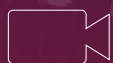


3<sup>RD</sup> EDITION OF GLOBAL CONFERENCE ON

# SURGERY AND ANESTHESIA

SEPT **14-15**



**VIRTUAL EVENT**

**Contact us:**

Ph: +1 (702) 988-2320

Email: [surgery@magnusconference.com](mailto:surgery@magnusconference.com)

Website: <https://surgery-conferences.magnusgroup.org/>

# BOOK OF ABSTRACTS

3<sup>RD</sup> EDITION OF GLOBAL  
CONFERENCE ON

**SURGERY AND  
ANESTHESIA**

**14-15** SEPT

# INDEX

## Contents

About Host	<b>4</b>
Keynote Presentations - Day 1	<b>5</b>
Oral Presentations - Day 1	<b>9</b>
Keynote Presentations - Day 2	<b>34</b>
Oral Presentations - Day 2	<b>36</b>
Participants List	<b>54</b>

## ABOUT MAGNUS GROUP

**Magnus Group (MG)** is initiated to meet a need and to pursue collective goals of the scientific community specifically focusing in the field of Sciences, Engineering and technology to endorse exchanging of the ideas & knowledge which facilitate the collaboration between the scientists, academicians and researchers of same field or interdisciplinary research. Magnus group is proficient in organizing conferences, meetings, seminars and workshops with the ingenious and peerless speakers throughout the world providing you and your organization with broad range of networking opportunities to globalize your research and create your own identity. Our conference and workshops can be well titled as 'ocean of knowledge' where you can sail your boat and pick the pearls, leading the way for innovative research and strategies empowering the strength by overwhelming the complications associated with in the respective fields.

Participation from 90 different countries and 1090 different Universities have contributed to the success of our conferences. Our first International Conference was organized on Oncology and Radiology (ICOR) in Dubai, UAE. Our conferences usually run for 2-3 days completely covering Keynote & Oral sessions along with workshops and poster presentations. Our organization runs promptly with dedicated and proficient employees' managing different conferences throughout the world, without compromising service and quality.



# KEYNOTE FORUM

## DAY 01

3<sup>RD</sup> EDITION OF GLOBAL  
CONFERENCE ON

**SURGERY AND  
ANESTHESIA**

**14-15** SEPT



## Ricky Rasschaert

Hospital Network Antwerp, Belgium

### Complication avoidance and management in spine surgery

Spinal Surgery is like any other form of surgery at risk for unwanted or unexpected results. Even with MISS, which has its own risks for complications our patients need to be instructed very well to avoid unhappy patients or even worse litigation. In this presentation I will present the general and specific risks and complications in spinal surgery and how to try to avoid complications, or when present how deal with them. Patients are more and more filing complaints or go to go court if the result is not what they hoped for. The difference between an effort commitment and best effort is not always known and should be explained upfront. Every country has different ways how to deal with complications and medical errors. I will talk about the Belgian approach. Openness and honesty is usually the best approach: tell the patient that some part of the surgery did not go as planned, try to be clear and do not hide any part. In my experience patients are more forgiving when their physician is honest and open. When they suspect something went wrong or things are hidden; patient lose their faith and trust and it lowers the barriers to file a complaint.

#### Audiences Take Away:

- There is a difference between a complications and a medical error/mistake
- How to lower the risk for complications
- How to handle the doctor-patient relation after a complications/error/complaint

#### Biography:

Ricky Rasschaert is a neurosurgeon and spine surgeon at the ZNA Middelheim Hospital, the largest non-academic teaching hospital in Antwerp. The use of minimally invasive techniques and spinal reconstructive surgery are his main interests. He is member of several Neurosurgical and Spine societies. He also has a teaching position and does research involving the treatment of Tarlov cysts, ME and on neuromonitoring in spine surgery cases. There also is an active participation in the Spine Tango project, an international registry for spine surgery with the intention of improving quality of given care. Other interests are department and hospital management as well as medico-legal expertise.

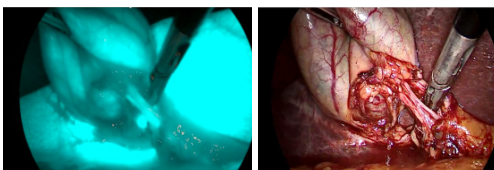


## Orestis Ioannidis

Aristotle University of Thessaloniki, Greece

### Open abdomen and negative pressure wound therapy for acute peritonitis especially in the presence of anastomoses and ostomies

Acute peritonitis is a relatively common intra-abdominal infection that a general surgeon will have to manage many times in his surgical career. Usually it is a secondary peritonitis caused either by direct peritoneal invasion from an inflamed infected viscera or by gastrointestinal tract integrity loss. The mainstay of treatment is source control of the infection which is in most cases surgical. In the physiologically deranged patient there is indication for source control surgery in order to restore the patient's physiology and not the patient anatomy utilizing a step approach and allowing the patient to resuscitate in the intensive care unit. In such cases there is a clear indication for re-laparotomy and the most common strategy applied is open abdomen. In the open abdomen technique the facial edges are not approximated and a temporary closure technique is used. In such cases the negative pressure wound therapy seems to be the most favourable technique, as especially in combination with fascial traction either by sutures or by mesh gives the best results regarding delayed definite fascial closure, and morbidity and mortality. In our surgical practice we utilize in most cases the use of negative pressure wound therapy with a temporary mesh placement. In the initial laparotomy the mesh is placed to approximate the facial edges as much as possible without whoever causing abdominal hypertension and in every re-laparotomy the mesh is divided in the middle and, after the end of the re-laparotomy and dressing change, is approximated as much as possible in order for the facial edges to be further approximated. In every re-laparotomy the mesh is further reduced to finally allow definite closure of the open abdomen. In the presence of ostomies the negative pressure wound therapy can be applied as usual taking care just to place the dressing around the stoma and the negative pressure can be the standard of -125 mmHg. However, in the presence of anastomosis the available data are scarce and the possible strategies are to defer the anastomosis for the re-laparotomy with definitive closure and no further need of negative pressure wound therapy, to lower the pressure to -25 mmHg in order to protect the anastomosis and to place the anastomosis with omentum in order to avoid direct contact to the dressing. The objective should be early closure, within 7 days, of the open abdomen to reduce mortality and complications.



#### Audience Take Away:

- Open abdomen should be carefully tailored to each single patient taking care to not overuse this effective tool
- Every effort should be exerted to attempt abdominal closure as soon as the patient can physiologically tolerate it
- All the precautions should be considered to minimize the complication rate
- Negative pressure wound therapy in peritonitis seems to improve results in terms of morbidity and mortality and definitive abdominal closure
- When an ostomy is present there are only subtle differences in management
- When an anastomosis is present consider:
  - Placing the anastomosis remotely to visceral protective layer and thus the negative pressure
  - Place the omentum over the anastomosis
  - Decrease the negative pressure to even as low as -25 mmHg
  - Perform a sutured anastomosis rather than a stapled one

**Biography:**

Ioannidis studied medicine in the Aristotle University of Thessaloniki and graduated at 2005. He received his MSC in Medical Research Methodology in 2008 from Aristotle University of Thessaloniki and in Surgery of Liver, Biliary Tree and Pancreas from the Democritus University of Thrace in 2016. He received his PhD degree in 2014 from the Aristotle University of Thessaloniki for his thesis The effect of combined administration of omega-3 and omega-6 fatty acids in ulcerative colitis. Experimental study in rats. He is a General Surgeon with special interest in laparoscopic surgery and surgical oncology and also in surgical infections, acute care surgery, GCSA and ERAS. He has received fellowships for EAES, ESSO, EPC, ESCP and ACS and has published more than 130 articles with more than 3000 citations and an H-index of 28.



# **SPEAKERS**

## **DAY 01**

**3<sup>RD</sup> EDITION OF GLOBAL  
CONFERENCE ON**

# **SURGERY AND ANESTHESIA**

**14-15** **SEPT**



## Chest wall reconstruction: Key to improving survival of major thoracic trauma

Christopher M R Satur<sup>1</sup>, Manikandar Srinivas Cheruvu<sup>2</sup>, Rachel Chubsey MMedSci<sup>3</sup>, Miliča Blagojevic-Bucknall<sup>4</sup>,

<sup>1</sup>Department Cardiothoracic Surgery, University Hospital of North Midlands, Stoke-on-Trent, UK

<sup>2</sup>Department of Orthopaedic Surgery, The Robert Jones and Agnes Hunt Orthopaedic Hospital, UK

<sup>3</sup>Thoracic Surgery Registrar, Glenfield Hospital, Leicester, UK

<sup>4</sup>Senior Lecturer in Statistics, Primary Care and Health Science, Keele University, UK

**Aim:** Chest wall injuries cause 25% of the mortality following poly-trauma most commonly road traffic collisions and falls from moderate to high heights. Despite increasing utilisation of these treatments that achieve successful reconstruction of skeletal injuries, there remains a perception that this treatment does not improve patient survival. We undertook this study to examine the impact of chest wall reconstruction (CWR) on mortality.

**Methods:** A retrospective single institutional cohort study, compared mortality following treatment of major chest wall trauma (Abbreviated Injury Scale  $\geq 3$ ) by chest wall reconstruction (CWR) to conservative management (Non-CWR) between September 2014 and December 2019. Demographic and co-morbid characteristics were evaluated for impact on mortality by univariate analysis and hazard ratios (HR) were estimated using Cox proportional hazard analysis.

**Results:** Of a cohort of 947, CWR (n = 157, 16.6%) had a lower prevalence of polytrauma (35.7 vs 56.3%,  $p < 0.001$ ) and head injury (11.5% vs 26.7%,  $p < 0.001$ ). CWR treated patients had experienced a greater number of fractured ribs, (8.3 Vs 5.8,  $p < 0.001$ ), higher incidence of flail chest (84.9% vs 48.9%,  $p < 0.001$ ), admission to Critical Care (64.3% Vs 44.1%,  $p < 0.001$ ) and demand for ventilation (36.9% vs 25.6%,  $p = 0.004$ ), and a higher New Injury Severity Scale value (36.9 vs 34.6,  $p = 0.003$ ). Mortality of CWR patients was significantly lower (3.8% vs 8.6%,  $p = 0.04$ ). Cox proportional hazard regression analysis demonstrated CWR was associated reduced mortality, Hazard ratio 0.30 (95% CI 0.12, 0.72,  $p = 0.008$ ).

**Conclusions:** Chest wall reconstructive surgery, provided as a part of multi-disciplinary treatment strategy for major thoracic trauma, reduces risk of mortality. The results validate the United Kingdom Government strategy that centralised management of serious trauma in Major Trauma Centres to improve outcomes.

### Audience Take Away:

- Classifications of major thoracic trauma
- Surgical methods of treating major chest wall trauma.
- Improve understanding of the pivotal role that surgical treatment has in the management of chest wall trauma
- Consider the importance of developing services that treat major chest wall trauma, when designing services that treat major trauma

### Biography:

Consultant in Cardiothoracic Surgeon for 20 years, practiced cardiac and thoracic surgical practice. Published two theses MS (1996) in Cardiac Surgery, MA (2017) Postgraduate medical education. Arris and Gale Lectureship for research into Magnesium and Cardiac surgery. Clinical and academic areas of specialist interest; Surgical treatment of lung cancer; physiological disturbances of pectus excavatum; chest wall reconstruction to treat major thoracic trauma; surgical treatment of massive pulmonary embolus, with in excess of 40 published articles published.



## Does premedication with systemic corticosteroids and antibiotics reduce inflammation and intraoperative bleeding during sinonasal endoscopic surgery for Chronic Rhinosinusitis With Nasal Polyps (Crswnp) ?

**Konstantina Chrysouli**

National and Kapodistrian University of Athens, Greece

**C**hronic rhinosinusitis with nasal polyps (CRSwNP) is a disease characterized by a variety of inflammatory mechanisms. Extensive genetic analyses have shown that among the molecules that are involved in its genetic base, interleukins (ILs) play a critical role in development and progression of CRSwNP. Interleukins, such as IL-4 (5q31.1), IL-5 (5q31.1), IL-13 (5q31.11) and IL-25 (14q11.2) are found to be overexpressed. One of the most common complications during surgery is bleeding. Bleeding increases the risk of complications as well as the time of surgery. One of the strategies for reducing bleeding during surgery is the use of preoperative corticosteroid.

**Purpose:** To study the change of the degree and intense of inflammation and vascularity in chronic rhinosinusitis with nasal polyps (CRSwNP) among patients who received immediate preoperative treatment with oral corticosteroids and antibiotics, compared to patients who did not. Our study is going to investigate for the first time using immunohistochemical methods, whether the immediate preoperative treatment with oral corticosteroids and antibiotics in patients with CRSwNP who are to be operated on, is associated with reduced inflammation and vascularity of the surgical field. Regarding Inflammation, the degree and intensity of immunohistochemical expression of inflammatory markers will be evaluated. Regarding Vascularity, the immunohistochemical expression of endothelial markers will be evaluated, through Digital Image Analysis, in order to avoid technical problems of subjective estimation.

**Patients and Methods:** The study group consists of fifty (50) patients who were given immediate preoperative treatment with per os corticosteroids and antibiotics (Methylprednisolone in tapering form and Amoxicillin / Clavulanic acid) for 7 days. The second control (control group) consists of fifty (50) patients who have not received any pretreatment.

**Results:** From the review of the literature to date, the effect of corticosteroids and antibiotics on the size of nasal polyps, nasal symptoms and systemic markers of inflammation is significant. The use of perioperative corticosteroids reduces blood loss and operation time and improves the quality of the surgical field. There are no other medications that have been shown to improve the surgical field and outcome. Statistical analysis of our results will investigate whether there is a statistically significant difference between the immunoexpression of inflammatory markers, angiogenic adhesion molecules and vascularity between patients with CRSwNP who underwent endoscopic surgery after receiving preoperative treatment compared to patients who underwent surgery without any pretreatment. Secondly, if indirect preoperative administration of antibiotics and corticosteroids can change the degree and severity of inflammation in CRSwNP. Thirdly, if due to their impact on the degree and intensity of the inflammation, the intraoperative bleeding during the endoscopic surgery for CRSwNP is affected.

### Biography:

Konstantina Chrysouli works as a specialist Otorhinolaryngologist at Penteli Children's Hospital, Athens, Greece. She is a Member of the European Rhinologic Society, of the European Society for Medical Oncology (ESMO), of the European Head & Neck Society (EHNS) and the European Society of Pediatric Otorhinolaryngology (ESPO). She received her training in Otorhinolaryngology in the 1st ENT Department of University Hospital of Athens Hippocrates and in Athens General Children's Hospital P. & A. Kyriakou a. She also holds a Master's Degree in Rhinology from the University of Athens and the University of Patras. Chrysouli has participated in Global and International Conferences with Speeches of a full spectrum of Otorhinolaryngology. She has attended several surgical workshops, among which Temporal Bone dissection, Rhinoplasty and Endoscopic Sinus Surgery courses and is certified in Fascial Aesthetic from University of Genova, Italy. Her current clinical and research interests cover the full breadth of Pediatric Otorhinolaryngology, with a particular interest, though, in Rhinology and Otology-Neuroaudiology. She also serves as a Reviewer and as an Editorial Advisory Board Member of International peer-reviewed ENT journals.



## Effects of cardiopulmonary bypass temperature in adult cardiac surgery: A single-centre parallel-group open randomised controlled trial

**Samaddar Avishek**

University Hospital of North Midlands, United Kingdom

**Introduction:** Paper microscope (Foldscope), one of the latest inventions in the field of science is an ultra-low cost, portable, versatile, and water proof microscope which do not require electricity. The aim of this research was to compare histological features of kidney observed in the normal microscope and foldscope. This research is focused on the comparison of the histological features of kidney observed in the conventional microscope and foldscope under 100X.

**Method:** This comparative study was conducted in Department of Anatomy, Nepalese Army Institute of Health Sciences, and Nepal. All histological slides of kidneys present at Department of Anatomy during June 2019- September 2019 were included in this study.

**Result:** A total of 25 samples were viewed under the conventional laboratory microscope (C x L and Paper Microscope (Foldscope). Foldscope observers were able to distinguish the histological features of the cortex and the medulla of the kidney along with the difference in the luminal size and the staining of the cells in the cortex and the medulla of the kidney. In comparison to conventional microscope, 5 (20%) of samples, observers were able to distinguish the features of the cells lining the tubules of the cortex and in 6 (24%) of samples, observers were able to distinguish the features of the cell lining collecting duct and straight tubules of loop of Henle of medulla using Foldscope.

**Conclusion:** Paper microscope can be a useful alternative of conventional microscope in low resource settings for the identification of the histological samples.

### Biography:

Avishek Samaddar did his basic medical degree from R.G. Kar Medical College, Kolkata. Subsequently he did his Masters in General Surgery followed by Mch Cardiovascular and Thoracic Surgery from the Post Graduate Institute of Medical Education and Research, Chandigarh, one of the premier institutes of India. Subsequently he worked as a consultant in NH Rabindranath Tagore International Institute of Cardiac Sciences, Kolkata from 2018 to 2021 before moving to the United Kingdom to work at Alder Hey Children's Hospital, Liverpool. He is presently associated with the University Hospitals of North Midlands, Stoke-on Trent and has published multiple articles and is also an active reviewer of multiple journals.



## Driving clinical and quality projects with inclusion of equity principles

**Vanita Ahuja**

Yale School of Medicine, United States

**Objective:** To propose a new framework to design and implement quality improvement within research projects.

**Backgrounds:** The design and implementation of resident-driven clinical research quality improvement projects has become increasingly complex. There needs to be a paradigm on how the best way to approach them with a foundation of equity principles into the design.

**Methods:** We propose using the systematic seven-step model to guide research projects and the SMART template question method to conceive the clinical research questions.

**Results:** We have used the seven-step model led by a resident team to improve on perioperative processes. The two examples which have been beneficial has been reducing surgical site infection and improving perioperative care. Our monthly dashboard has the rate of surgical site infection and includes other metrics like race to make sure that everyone benefits from the changes introduced. The next project we are working on is making the peri-operative care more agile and standardized.

**Conclusion:** Our model provides a practical approach to guiding mentors and residents in their pursuit of quality improvement projects. The application has been successfully employed in decreasing wound infection and peri-operative optimization with introduction of dashboards to show success with inclusion of equity as a variable.

**Audience Take Away:**

- Provide a framework to study and understand a patient safety or quality issue
- Develop the steps to implement a quality project in a short timeframe
- Understand resources and stakeholder analysis in developing a project

**Biography:**

Vanita Ahuja is the Chief of General Surgery at the Connecticut Healthcare System-Veterans Affairs, and is the Surgery Quality Liaison for Yale Surgery Residency Program. Ahuja earned her medical degree from Uniformed Services University of the Health Sciences located in Bethesda, Maryland. She then attended Portsmouth Naval Medical Center in Portsmouth, Virginia, where she completed her internship. After completing her internship, Dr. Ahuja went on to complete her residency, which she completed at Johns Hopkins Hospital, located in Baltimore, Maryland. In addition, Dr. Ahuja is also a Fellow of the American College of Surgeons. Dr. Ahuja most recently was the Director of the surgical residency program at Sinai Hospital in Baltimore. Dr. Ahuja also led the Pennsylvania Consortium ACS National Surgical Quality Improvement Program (NSQIP) and serves as a Consultant for the American Board of Surgery.



## The really bad flatfoot

**Harry John Visser**

SSM DePaul Health Center, United States

Although an abundance of research into the treatment of adult-acquired flatfoot deformity (AAFD) has led to improved standardization of surgical options, discrepancies still exist in how surgeons approach this common musculoskeletal condition. These differences in surgical approaches appear to be based on geographic location and training. As other conditions became included as part of the umbrella of adult-acquired flatfoot deformity, including posterior tibial tendon rupture, peritalar instability, osteoarthritis of the pedal joint structures, dorsolateral peritalar subluxation (PTS), and progressive talipes equinovagum, these conditions also involve pathologic damage of the supporting structures, including the superficial and deep deltoid, talonavicular, spring, cervical and interosseous ligaments. This further adds to nomenclature confusion and treatment. As a result, a newer classification includes these extended pathologic conditions, described as progressive collapsing foot deformity (PCFD). PCFD represents a complex 3-dimensional deformity with varying degrees of rearfoot valgus, forefoot abduction, and midfoot varus. This oral presentation offers insights into surgical management of AAFD and PCFD with ten case presentations which provide a stepwise approach to assessing a patient, considering their unique biomechanics and determining necessary procedures that would benefit their anatomy.

### Audience Take Away:

- A better understanding of complex foot deformities
- Ability to evaluate complex biomechanical flatfoot deformities in practice
- Stepwise surgical approach to correcting significant flatfoot deformities

### Biography:

H. John Visser is one of the Podiatric professions' most decorated physicians. He is an accomplished foot and ankle surgeon from St. Louis, Missouri in practice for forty years. Dr. Visser is a Diplomate of the American Board of Foot and Ankle Surgery as well as a Diplomate of the American Board of Podiatric Medicine. He is a Fellow of the American College of Foot and Ankle Surgeons and has been a residency director instructing young surgeons in foot and ankle reconstructive surgery training over 100 Podiatric surgeons and he currently has 15 residents under his leadership role.



## A systematic review of management of trochanteric neck of femur fractures and the impact of emerging research and guidelines on considerations for surgery

Abdus Samee Wasim<sup>1</sup>, Al-Musabi M<sup>1</sup>, Tahir M<sup>1</sup>, Roope J<sup>2</sup>, Quinn D<sup>2</sup>, Patel A<sup>2</sup>

<sup>1</sup>Birmingham Orthopaedic Training Programme, Birmingham, West Midlands, United Kingdom

<sup>2</sup>Royal Stoke University Hospital, Birmingham, West Midlands, United Kingdom

**Background:** Previous studies have demonstrated that debridement of meniscal tears in the pediatric population leads to poorer long-term outcomes than primary arthroscopic repair, which has led to a shift in the management of these injuries. This study aims to evaluate the current practice in management of pediatric meniscal tears in a UK major trauma center.

**Methods:** We performed a retrospective review of consecutive pediatric patients (aged <18 years) with traumatic meniscal tears between 2018 and 2020. Patients' clinical notes (digital and paper) were reviewed and the following were extracted: Operation performed (arthroscopic debridement vs. repair), performing surgeon Orthopedic subspecialty (adult or pediatric), intra-operative images (where available), healthcare resource group code allocated to procedure, non-traumatic or saucerisation of discoid meniscus were excluded.

**Results:** 26 cases were included, 65% male, 35% female, median age of 15 years (13-16). 8 cases were performed by a pediatric specialist: 18 by an adult knee surgeon. 62% of cases were meniscal debridement compared to 38% repaired. Comparing orthopedic specialty, pediatric surgeons performed meniscal repair in 25% (n=2) of their cases, compared to 44% (n=8) of cases performed by adult surgeons. One case had incorrect HRG coding, resulting in a loss of £973 to the department.

**Conclusion:** Surgical management for pediatric meniscal tears was predominantly performed by debridement (62%) compared to repair (38%). Heterogeneity of cases and poor arthroscopic images limited assessment of whether debridement was performed due to lack of skill set or due to meniscal tears that were not amenable to repair. Standardization of arthroscopic images is recommended to allow classification of tears.

### Audience Take Away:

- Surgical options for management of pediatric meniscal tears
- Current evidence and implication of managing pediatric meniscal tear with debridement vs. repair
- Value of educational refresher courses on meniscal repair to improve surgical skills and reduce frequency of debridement surgery amongst this cohort

### Biography:

Wasim studied sciences at the Queen Elizabeth's School London, United Kingdom developing an appetite for surgery at an early stage. He continued at Bart's & the London School of Medicine, the oldest medical school in the world, graduating in 2014 with an MBBS (distinction) and BSc (Hons) in experimental pathology carrying out research at the Blizzard Institute, London. He completed junior surgical training in Birmingham, achieving MRCS (England) and secured a trauma & orthopedic specialty job on the prestigious Birmingham orthopedic training programme. He has a keen interest in research and surgical education delivering multiple UK national training courses.





## High altitude cerebral edema: Improving treatment options

**Brandon Lucke Wold**

University of Florida, United States

**H**igh altitude illness in its most severe form can lead to high altitude cerebral edema (HACE). Current strategies have focused on prevention with graduated ascents, pharmacologic prophylaxis, and descent at first signs of symptoms. Little is understood regarding treatment with steroids and oxygenation being commonly utilized. Pre-clinical studies with turmeric derivatives have offered promise due to its anti-inflammatory and antioxidant properties, but they warrant validation clinically. Ongoing work is focused on better understanding the disease pathophysiology with an emphasis on the glymphatic system and venous outflow obstruction. This review highlights what is known regarding diagnosis, treatment, and prevention, while also introducing novel pathophysiology mechanisms warranting further investigation.

### Audience Take Away:

- Difference between high altitude cerebral edema and high altitude injury
- How to treat HACE
- Emerging interventions

### Biography:

Brandon Lucke-Wold was born and raised in Colorado Springs, CO. He graduated magna cum laude with a BS in Neuroscience and distinction in honors from Baylor University. He completed his MD/PhD, Master's in Clinical and Translational Research, and the Global Health Track at West Virginia University School of Medicine. His research focus was on traumatic brain injury, neurosurgical simulation, and stroke. At West Virginia University, he also served as a health coach for the Diabetes Prevention and Management program in Morgantown and Charleston, WV, which significantly improved health outcomes for participants. In addition to his research and public health projects, he is a co-founder of the biotechnology company Wright-Wold Scientific, the pharmaceutical company CTE cure, and was a science advocate on Capitol Hill through the Washington Fellow's program. He has also served as president of the WVU chapters for the American Association of Pharmaceutical Scientists, Neurosurgery Interest group, and Erlenmeyer Initiative Entrepreneur group. In addition, he has served as vice president for the graduate student neuroscience interest group, Nu Rho Psi Honor Society, and medical students for global health. He was an active member of the Gold Humanism Honor Society and Alpha Omega Alpha Honor Society. He is currently a member of the UF House Staff Council and Positive Culture Committee. He is married to Noelle Lucke-Wold and has two children. As a family, they enjoy running with their dogs, rock climbing, and traveling. In his spare time, Brandon frequently runs half marathons and 10ks together with his wife. Brandon also enjoys reading and discussing philosophy and playing chess. He is currently a Pgy4 neurosurgery resident at University of Florida with R25 funding and plans to pursue endovascular training.





## Rare case of ectopic breast malignancy

**Shreya Sengupta**

Frimley park hospital, UK

In this weird and wonderful world of the human body, ectopic breast tissue is found in 2–6% of women and most commonly in axilla (72%) and least commonly in vulva (4%). They bear similar physiological and pathological variations affecting the normal breast tissue. Ectopic breast cancer has been reported in only 0.3% of all breast malignancies in literature. Here, we present a case of a 78 year old lady who presented with the GP with a right groin lymphadenopathy associated with a vulva-vaginal lesion. A biopsy of the lesion revealed mammary adenocarcinoma of the vagina with nodal involvement. Triple assessment of the breast ruled out a primary breast malignancy in its anatomical position. After further investigations, the gynecology and breast MDT agreed on a diagnosis of ectopic breast malignancy of the vulva. She underwent wide local excision of vulval lesion, and received chemo-radiotherapy with no complications in 5 months follow-up so far. There is still no definite treatment plan for ectopic breast cancer due to paucity of cases. Some literature prefers mastectomy whereas others have shown similar outcomes without surgery. Histologic Similarities between ectopic breast tissue and benign adnexal tumors makes it a difficult diagnosis. Ectopic breast cancer was first described in 1861, and since then, fewer than 200 cases have been reported in the literature, affecting mostly ectopic breast tissue in the axilla. Hence, this case makes a rare diagnosis of primary ectopic breast malignancy of vulva with successful treatment.

### Audience Take Away:

- Rare encounter of significant disease
- Management plan of ectopic breast malignancy
- Adds to the literature of ectopic breast malignancy and will help in future treatment

### Biography:

Shreya Sengupta completed MBBS and graduated in 2019 from R. G Kar Medical College and Hospital, Kolkata, India. During her MBBS, she received honours in all the years of curriculum and gold medal in surgery. She is an ATLS provider and served as frontliner for COVID 19 pandemic in India as ICU doctor and thereafter worked at Medway NHS foundation trust and Frimley park hospital in England as trust doctor for 2 years in general surgery, trauma and orthopaedics. She completed her MRCS in 2022 and currently is a core surgical trainee specialising in plastic surgery at Belfast, Northern Ireland.



## Resection of metatypical type basocellular carcinoma with self-grafting reconstruction

Anna Luiza Konig Hunka<sup>1</sup>, Lohana Maylane Aquino Correia de Lima<sup>2</sup>, Frederico Marcio Varela Ayres de Melo Junior<sup>3</sup>, Julia de Souza Beck<sup>4</sup>, Victor Leonardo Mello Varela Ayres de Melo<sup>5</sup>, Maria Luísa Alves Lins<sup>6</sup>, Rodrigo Henrique Mello Varela Ayres de Melo<sup>7</sup>, Milena Mello Varela Ayres de Melo<sup>8</sup>, Jussara Diana Varela Ayres de Melo<sup>9</sup>, Nely Dulce Varela de Melo Costa Freitas<sup>10</sup>, Esdras Marques da Cunha Filho<sup>11</sup>, Bruna Heloísa Costa Varela Ayres de Melo<sup>12</sup>, Rayane Pereira de Araujo<sup>13</sup>, Evellyn Maria Silva De Almeida<sup>13</sup>, Edith Maria Feitosa El-Deir<sup>13</sup>, Thayna Lacerda Almeida<sup>13</sup>, Renata Araujo Varela Ayres de Melo<sup>14</sup>, Zelia De Albuquerque Seixas<sup>15</sup>, Neme Portal Bustamante<sup>16</sup>, Juan Carlos Barrenechea Montesinos<sup>17</sup>, Jorge Pontual Waked<sup>18</sup>, Filipe Cavalcanti de Andrade Lima Brito<sup>19</sup>, Jose Leonardo de Paiva e Souza<sup>20</sup>, Ricardo Eugenio Varela Ayres de Melo<sup>21</sup>

<sup>1</sup> Undergraduate Medical Student, FITS – Recife, Pernambuco, Brazil

<sup>2</sup> Dental Surgeon; Master degree student in dental clinics, Federal University of Pernambuco, Recife, Pernambuco, Brazil

<sup>3</sup> Dental Surgeon, Maurício de Nassau University – Natal, Rio Grande do Norte, Brazil

<sup>4</sup> Undergraduate dental student, Maurício de Nassau University – Natal, Rio Grande do Norte, Brazil

<sup>5,13</sup> Undergraduate dental student, Federal University of Pernambuco - Recife, Pernambuco, Brazil.

<sup>6</sup> Dental Surgeon, Federal University of Pernambuco, Recife, Pernambuco, Brazil

<sup>7</sup> General Surgeon, Southern Society Divine Providence Hospital, Rio Grande do Sul, Brazil

<sup>8</sup> Undergraduate Medical Student, Olinda Medical Faculty, Olinda, Pernambuco, Brazil

<sup>9</sup> Physiotherapist, Faculty of Communication Technology and Tourism, Olinda, Pernambuco, Brazil

<sup>10</sup> Physiotherapist, University Maurício de Nassau, Recife, Pernambuco, Brazil

<sup>11</sup> Undergraduate Medical Student, Olinda Medical Faculty, Olinda, Pernambuco, Brazil

<sup>12</sup> Undergraduate dental student, UNIFACEX – Natal, Rio Grande do Norte, Brazil

<sup>14</sup> Undergraduate Medical Student, Maurício de Nassau University, Recife, Pernambuco, Brazil

<sup>15</sup> College Professor of Dentistry Course, Federal University of Pernambuco, Recife, Pernambuco, Brazil

<sup>16</sup> College Professor of Dentistry Course, University National Federico Villarreal, Lima, Peru

<sup>17</sup> Dental Health of the Army of Peru, Peruvian Army, Lima, Peru

<sup>18</sup> College Professor of Dentistry Course; Federal University of Campina Grande, Campina Grande, Paraíba, Brazil

<sup>19</sup> Physiotherapist; Federal University of Pernambuco, Recife, Pernambuco, Brazil

<sup>20</sup> Physiotherapist at University open of Therapist- Pernambuco, Brazil

<sup>21</sup> Head of Department of Bucofacial of Dentistry Course; Coordinator of the Specialization Course in Oral Maxillofacial Surgery and Traumatology, Federal University of Pernambuco, Recife, Pernambuco, Brazil

The face is characterized as a potential area for the development of malignant pathologies, whose manifestation is directly related to the amount of sun exposure. Basal cell carcinoma constitutes most of the so-called non-melanoma skin cancer and can be classified into several forms that demonstrate different clinical patterns. They have multifactorial pathogenesis, with the influence of ultraviolet radiation. Patients are usually middle-aged or elderly and are more common in Caucasians. The incidence is approximately 30% higher in men than in women and about 80% are in the head or neck. Meta typical carcinoma is an uncommon type of basal cell carcinoma that exhibits aggressive clinical behavior. Basal cell carcinomas are almost always asymptomatic and reported by patients as a non-healing lesion. They have a slow and progressive growth and in the beginning, they can be confused with acne lesions, abrasions, nevi or allergies by the patients. It shows an invasive front displaying a mixture of basal cell carcinoma and squamous cell carcinoma with a superficial basal cell carcinoma or overlying clear nodular carcinoma. Basal cell carcinoma is not considered a fatal condition. However, if diagnosed late or treated incorrectly, it can destroy anatomical structures and become a therapeutic challenge as it has the potential to cause significant morbidity through invasion and destruction of local tissue,

resulting in severe disfigurement, loss of function and, in cases rare, death. There is a need for complementary exams for better diagnosis of the lesion. Biopsy is essential to identify the type of basal cell carcinoma and to define the excision margins of the lesion according to its histological subtype. Thus, the histological diagnosis and classification of basal cell carcinomas will be essential for planning the management of the patient. Treatment can be surgical or non-surgical. This article aims to report a clinical case of a patient who had meta typical carcinoma. Female patient, 77 years old sought the Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco. The patient underwent resection of the injured tissue followed by reconstruction using an auto graft with tissue removed from the pectoral region. It is observed that due to the high degree of malignancy and recurrence of the pathology, a thorough anamnesis and clinical conduct was performed, minimizing the risks involving the pathology and returning aesthetics and function to a patient. The postoperative period was uneventful and after 15 days the stitches were removed. The patient was followed up for a period of five years and showed total tissue adaptation in the previously injured region, with good healing and favorable aesthetics with no signs of recurrence.

**Audience Take Away:**

- Definition of meta typical type basocellular carcinoma
- Clinical and Histo-pathological characteristics of meta typical type basocellular carcinoma
- Forms of treatment
- Description of a surgical clinical case

**Biography:**

Undergraduate Medical Student FITS – Recife, Pernambuco, Brazil. Currently, she is an intern at Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco, being a member of the projects care for patients with oral diseases and facial traumas, the project prevention and treatment of cancer in face and mouth regions in Venturosa-Pernambuco-Brazil and the project intitled Use of Traditional Chinese Medicine in the treatment of patients with temporomandibular disorders.



## Clinical and radiographic features and treatment of dentigerous cyst associated with unerupted molars: Case report

Edith Maria Feitosa El-Deir<sup>\*1</sup>, Rayane Pereira de Araujo<sup>1</sup>, Evellyn Maria Silva De Almeida<sup>1</sup>, Thayna Lacerda Almeida<sup>1</sup>, Victor Leonardo Mello Varela Ayres de Melo<sup>1</sup>, Lohana Maylane Aquino Correia de Lima<sup>2</sup>, Frederico Marcio Varela Ayres de Melo Junior<sup>3</sup>, Julia de Souza Beck<sup>4</sup>, Maria Luisa Alves Lins<sup>5</sup>, Rodrigo Henrique Mello Varela Ayres de Melo<sup>6</sup>, Milena Mello Varela Ayres de Melo<sup>7</sup>, Esdras Marques da Cunha Filho<sup>7</sup>, Jussara Diana Varela Ayres de Melo<sup>8</sup>, Nely Dulce Varela de Melo Costa Freitas<sup>9</sup>, Bruna Heloisa Costa Varela Ayres de Melo<sup>10</sup>, Anna Luiza Konig Hunka<sup>11</sup>, Renata Araujo Varela Ayres de Melo<sup>12</sup>, Zelia De Albuquerque Seixas<sup>13</sup>, Neme Portal Bustamante<sup>14</sup>, Juan Carlos Barrenechea Ontesinos<sup>15</sup>, rge Pontual Waked<sup>16</sup>, Filipe Cavalcanti de Andrade Lima Brito<sup>17</sup>, Jose Leonardo de Paiva e Souza<sup>18</sup>, Ricardo Eugenio Varela Ayres de Melo<sup>19</sup>

<sup>1</sup>Undergraduate dental student, Federal University of Pernambuco - Recife, Pernambuco, Brazil.

<sup>2</sup>Dental Surgeon; Master degree student in dental clinics, Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>3</sup>Dental Surgeon, Maurício de Nassau University – Natal, Rio Grande do Norte, Brazil.

<sup>4</sup>Undergraduate dental student, Maurício de Nassau University – Natal, Rio Grande do Norte, Brazil.

<sup>5</sup>Dental Surgeon, Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>6</sup>General Surgeon, Southern Society Divine Providence Hospital, Rio Grande do Sul, Brazil.

<sup>7</sup>Undergraduate Medical Student, Olinda Medical Faculty, Olinda, Pernambuco, Brazil.

<sup>8</sup>Physiotherapist, Faculty of Communication Technology and Tourism, Olinda, Pernambuco, Brazil.

<sup>9</sup>Physiotherapist, University Maurício de Nassau, Recife, Pernambuco, Brazil.

<sup>10</sup>Undergraduate dental student, UNIFACEX – Natal, Rio Grande do Norte, Brazil.

<sup>11</sup>Undergraduate Medical Student, FITS – Recife, Pernambuco, Brazil.

<sup>12</sup>Undergraduate Medical Student, Maurício de Nassau University, Recife, Pernambuco, Brazil.

<sup>13</sup>College Professor of Dentistry Course, Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>14</sup>College Professor of Dentistry Course, University National Federico Villarreal, Lima, Peru.

<sup>15</sup>Dental Health of the Army of Peru, Peruvian Army, Lima, Peru.

<sup>16</sup>College Professor of Dentistry Course; Federal University of Campina Grande, Campina Grande, Paraíba, Brazil.

<sup>17</sup>Physiotherapist; Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>18</sup>Physiotherapist at University open of Therapist- Pernambuco, Brazil.

<sup>19</sup>Head of Department of Bucofacial of Dentistry Course; Coordinator of the Specialization Course in Oral, Maxillofacial Surgery and Traumatology, Federal University of Pernambuco, Recife, Pernambuco, Brazil

The dentigerous cyst is the most common developmental odontogenic cysts involved in this classification. It believes that originates at the separation of the fluid that is around the crown of an impacted tooth. This cyst is characterized for envolving the crown of na impacted tooth and connects to the tooth in the cementoenamel junction. This cyst most often affects the mandibulars third molars. The most affected age group is from ten to thirty years old, with a slight preference for the male sex and higher prevalence of caucasians. The dentigerous cysts are generally small size and asymptomatic, but may in some cases reach a considerable size. Radiographically, there is an unilocular radiolucent image associated with the crown of an impacted tooth, with well-defined and often sclerotic margins. This work is a case report of dentigerous cyst associated with molars enclosed in a female patient of 20 years old. The patient searched treatment to the Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco- Brazil, after radiographic examination for orthodontic treatment. She did not complain

of pain or bleeding, only a small increase in volume on the left side of the face. At radiographic evaluation, it was noticed the presence of radiolucence area suggestive of cyst at left maxilar second and third molar and right mandibular third molar, all enclosed. The surgical treatment performed was cystic enucleation. The diagnosis of dentigerous cyst was confirmed after histopathological examination. In this report we will discuss the clinical, radiographical, pathological and therapeutical case.

**Audience Take Away:**

- Dental surgeons will be able to apply the knowledge presented in the paper in clinical practice, recognizing the characteristics of this cyst, which are extremely important for a correct differential diagnosis and subsequent treatment.
- It will help in the definitive treatment when the dental surgeons come across cases of dentigerous cysts, besides promoting post-operative follow-up, which is very important to verify the absence of signs of recurrence, by requesting periodic imaging exams.
- The research can be referenced in other works with the objective of expanding the knowledge about the case addressed.
- This is a case report of a cystic lesion common among cysts of developmental origin and the second most common among odontogenic cysts, this presentation will provide evidence about the lesion, in addition to presenting the treatment for the respective case, thus aiding the diagnosis and treatment of dentigerous cysts.

**Biography:**

Student of the 7th period of Dentistry at the University Federal de Pernambuco - UFPE. Intern at the Oral Maxillofacial Surgery and Traumatology of the Hospital das Clinicas, Federal University of Pernambuco - UFPE. She is currently a volunteer in the extension entitled: Care of patients with oral diseases and facial trauma and the project entitled Prevention and treatment of cancer in the face and mouth regions in the city of Venturosa/PE. She also participates as a volunteer in the project for the use of Traditional Chinese Medicine in the treatment of patients with temporomandibular joint dysfunctions.



## Excisions of 4 unerupted canines in the mentonian region of the mandible: Kisses teeth

Evellyn Maria Silva De Almeida<sup>1</sup>, Victor Leonardo Mello Varela Ayres de Melo<sup>1</sup>, Rayane Pereira de Araujo<sup>1</sup>, Edith Maria Feitosa El-Deir<sup>1</sup>, Thayna Lacerda Almeida<sup>1</sup>, Lohana Maylane Aquino Correia de Lima<sup>2</sup>, Frederico Marcio Varela Ayres de Melo Junior<sup>3</sup>, Julia de Souza Beck<sup>4</sup>, Maria Luisa Alves Lins<sup>5</sup>, Rodrigo Henrique Mello Varela Ayres de Melo<sup>6</sup>, Milena Mello Varela Ayres de Melo<sup>7</sup>, Esdras Marques da Cunha Filho<sup>7</sup>, Jussara Diana Varela Ayres de Melo<sup>8</sup>, Nely Dulce Varela de Melo Costa Freitas<sup>9</sup>, Bruna Heloisa Costa Varela Ayres de Melo<sup>10</sup>, Anna Luiza Konig Hunka<sup>11</sup>, Renata Araujo Varela Ayres de Melo<sup>12</sup>, Zelia De Albuquerque Seixas<sup>13</sup>, Neme Portal Bustamante<sup>14</sup>, Juan Carlos Barrenechea Montesinos<sup>15</sup>, Jorge Pontual Waked<sup>16</sup>, Filipe Cavalcanti de Andrade Lima Brito<sup>17</sup>, Jose Leonardo de Paiva e Souza<sup>18</sup>, Ricardo Eugenio Varela Ayres de Melo<sup>19</sup>

<sup>1</sup> Undergraduate dental student, Federal University of Pernambuco - Recife, Pernambuco, Brazil.

<sup>2</sup> Dental Surgeon; Master degree student in dental clinics, Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>3</sup> Dental Surgeon, Maurício de Nassau University – Natal, Rio Grande do Norte, Brazil.

<sup>4</sup> Undergraduate dental student, Maurício de Nassau University – Natal, Rio Grande do Norte, Brazil.

<sup>5</sup> Dental Surgeon, Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>6</sup> General Surgeon, Southern Society Divine Providence Hospital, Rio Grande do Sul, Brazil.

<sup>7</sup> Undergraduate Medical Student, Olinda Medical Faculty, Olinda, Pernambuco, Brazil.

<sup>8</sup> Physiotherapist, Faculty of Communication Technology and Tourism, Olinda, Pernambuco, Brazil.

<sup>9</sup> Physiotherapist, University Maurício de Nassau, Recife, Pernambuco, Brazil.

<sup>10</sup> Undergraduate dental student, UNIFACEX – Natal, Rio Grande do Norte, Brazil.

<sup>11</sup> Undergraduate Medical Student, FITS – Recife, Pernambuco, Brazil.

<sup>12</sup> Undergraduate Medical Student, Maurício de Nassau University, Recife, Pernambuco, Brazil.

<sup>13</sup> College Professor of Dentistry Course, Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>14</sup> College Professor of Dentistry Course, University National Federico Villarreal, Lima, Peru.

<sup>15</sup> Dental Health of the Army of Peru, Peruvian Army, Lima, Peru.

<sup>16</sup> College Professor of Dentistry Course; Federal University of Campina Grande, Campina Grande, Paraíba, Brazil.

<sup>17</sup> Physiotherapist; Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>18</sup> Physiotherapist at University open of Therapist- Pernambuco, Brazil.

<sup>19</sup> Head of Department of Bucofacial of Dentistry Course; Coordinator of the Specialization Course in Oral, Maxillofacial Surgery and Traumatology, Federal University of Pernambuco, Recife, Pernambuco, Brazil

**T**he impacted tooth is a dental organ that, even fully developed, did not erupt at the normal time, being inside of the bone tissue and totally surrounded by bone tissue or by bone and mucous tissue.

**Objective:** The aim of this paper is to present a clinical case, wich deals with an unerupted tooth in the metonian region and also the clincal and surgical manegment of this case.

**Case report:** Female melanodermic patient, 14 years old attended the Oral and Maxillofacial Surgery and Traumatology Service of the Federal University of Pernambuco, reporting mentonian discomfort, thus an imaging-based screening was requested. These symptoms were induced by two impacted canine teeth associated with other two supernumerary teeth that, radiographically resembled canines, surrounded by a radiolucent image similar to a dentigerous cyst in chin region, and also in a atypical position of kisses teeth. Throughout the anamnesis the patient reported absence of bilateral lower canines as well as absence of traumatic

factors to this region and deciduous elements premature loss. Firstly, incisions were performed in both right and left parassymphyseal regions of the mandible, followed by displacements of mucoperiosteal flaps, osteotomies and osteotomies to approach the lesion. Then, aided by Seldin elevators, the uppermost elements on the right side were removed by means of lever points, and afterwards the left side was carefully managed in order not to injure the adjacent elements roots. As a result, the lesion involving the unerupted teeth was carefully removed through curettage so as not to damage the lower alveolar nerve vascular bundle, and this lesion was sent to perform the histopathological screening at the Oral Histopathology Laboratory of the Federal University of Pernambuco. The surgical sequence continued with cavity cleaning and bone regularization, repositioning the flaps and sutures with separate points through 5.0 mononylon wires. Over the postoperative period, the patient evolved without philogistic signs and after 1 year another facial (panoramic) radiography was requested for post-surgical control. Radiographically, the bone tissue healing in the region was observed, preserving the root apices of the inferior elements. Clinically, the patient presented with preserved tissues and all dental elements demonstrated pulp vitality.

**Conclusion:** This case reported a situation where the lower canines were impacted, together with supernumerary dental elements involved by a single dentigerous cyst. Due to this rare clinical occurrence, canines impacted in the mentonian region are less discussed in literature when compared to impacted upper canines given their lower incidence rates. This fact becomes important, both for surgical, pathological and radiological professionals, being the accomplishment of the correct diagnosis extremely important.

**Audience Take Away:**

- Definition of dentigerous cyst
- Forms of treatment
- jaw anatomy
- Description of a surgical clinical case

**Biography:**

Evellyn Almeida study dental medicine at the Federal University of Pernambuco - UFPE, Brazil. Currently an intern at the Oral Maxillofacial Surgery and Traumatology Service at UFPE. Extension volunteer whose project is care for patients with oral diseases and trauma at the Oral Maxillofacial Traumatology and Objective Outpatient Clinic of the Federal University - UFPE and the Project treatment of cancer in face and mouth regions in the city of Venturosa/PE. Volunteer in the project to extend the use of Traditional Chinese Medicine in the treatment of patients with temporomandibular joint disorders).



## Surgical excision of polymorphous adenocarcinoma in the left maxilla with mucous flap reconstruction

Lohana Maylane Aquino Correia de Lima<sup>1</sup>, Anna Luiza Konig Hunka<sup>2</sup>, Frederico Marcio Varela Ayres de Melo Junior<sup>3</sup>, Julia de Souza Beck<sup>4</sup>, Victor Leonardo Mello Varela Ayres de Melo<sup>5</sup>, Rayane Pereira de Araujo<sup>5</sup>, Evelyn Maria Silva De Almeida<sup>5</sup>, Edith Maria Feitosa El-Deir<sup>5</sup>, Thayna Lacerda Almeida<sup>5</sup>, Maria Luisa Alves Lins<sup>6</sup> Rodrigo Henrique Mello Varela Ayres de Melo<sup>7</sup>, Milena Mello Varela Ayres de Melo<sup>8</sup>, Esdras Marques da Cunha Filho<sup>8</sup>, Jussara Diana Varela Ayres de Melo<sup>9</sup>; Nely Dulce Varela de Melo Costa Freitas<sup>10</sup>, Bruna Heloísa Costa Varela Ayres de Melo<sup>11</sup>; Renata Araújo Varela Ayres de Melo<sup>12</sup>; Zelia De Albuquerque Seixas<sup>13</sup>; Neme Portal Bustamante<sup>14</sup>; Juan Carlos Barrenechea Montesinos<sup>15</sup>, Jorge Pontual Waked<sup>16</sup>, Filipe Cavalcanti de Andrade Lima Brito<sup>17</sup>, Jose Leonardo de Paiva e Souza<sup>18</sup>; Ricardo Eugenio Varela Ayres de Melo<sup>19</sup>

<sup>1</sup>Dental Surgeon; Master degree student in dental clinics, Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>2</sup>Undergraduate Medical Student, FITS – Recife, Pernambuco, Brazil.

<sup>3</sup>Dental Surgeon, Mauricio de Nassau University – Natal, Rio Grande do Norte, Brazil.

<sup>4</sup>Undergraduate dental student, Mauricio de Nassau University – Natal, Rio Grande do Norte, Brazil.

<sup>5</sup>Undergraduate dental student, Federal University of Pernambuco - Recife, Pernambuco, Brazil.

<sup>6</sup>Dental Surgeon, Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>7</sup>General Surgeon, Southern Society Divine Providence Hospital, Rio Grande do Sul, Brazil.

<sup>8</sup>Undergraduate Medical Student, Olinda Medical Faculty, Olinda, Pernambuco, Brazil.

<sup>9</sup>Physiotherapist, Faculty of Communication Technology and Tourism, Olinda, Pernambuco, Brazil.

<sup>10</sup>Physiotherapist, University Mauricio de Nassau, Recife, Pernambuco, Brazil.

<sup>11</sup>Undergraduate dental student, UNIFACEX – Natal, Rio Grande do Norte, Brazil.

<sup>12</sup>Undergraduate Medical Student, Mauricio de Nassau University, Recife, Pernambuco, Brazil.

<sup>13</sup>College Professor of Dentistry Course, Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>14</sup>College Professor of Dentistry Course, University National Federico Villarreal, Lima, Peru.

<sup>15</sup>Dental Health of the Army of Peru, Peruvian Army, Lima, Peru.

<sup>16</sup>College Professor of Dentistry Course; Federal University of Campina Grande, Campina Grande, Paraiba, Brazil.

<sup>17</sup>Physiotherapist; Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>18</sup>Physiotherapist at University open of Therapist- Pernambuco, Brazil.

<sup>19</sup>Head of Department of Bucofacial of Dentistry Course; Coordinator of the Specialization Course in Oral Maxillofacial Surgery and Traumatology, Federal University of Pernambuco, Recife, Pernambuco, Brazil

Low-grade polymorphous adenocarcinoma is a malignant neoplasm of salivary glands with uncommon occurrence in the head and neck region. The lesions occur more frequently among elderly females between the sixth and eighth decades of life, with a higher prevalence for the hard palate and soft palate. The most indicated surgical treatment is extensive surgical excision, including resection of the underlying bone. The purpose of this study is to describe a case report of a surgical excision of polymorphous adenocarcinoma in the maxilla with mucous flap reconstruction.

**Case Report:** A 63-year-old male patient complaining of a tumor-like lesion in his left maxilla, which gradually increased in volume. At the intra-oral clinical examination showed the presence of upper and lower total dentures, an increase in volume in the left maxillary tuberosity region and a lesion of nodular features with fibrous and smooth consistency, fixed,



sessile, oval shape, defined edges, and painless symptomatology. Radiographic imaging by panoramic radiography revealed a lesion with mixed radiographic density projected in the left maxillary tuberosity region and the in computed tomography scans were obtained and used for 3D image reconstruction. An axial tomographic view indicated the presence of a heterogeneous lesion with osteolysis: alteration in the cortical/trabecular bone and reabsorption of the left palatine bone, with regular contour and defined edges. Given the extent and complexity of the lesion, the surgical treatment in this case consisted of hemimaxillectomy and the surgery proceeded with mucosal flap reconstruction. The postoperative period followed was the service protocol, with no complications and no sign of recurrence. The pathological specimen was sent to the Anatomopathological Service, where the free margins and diagnosis were confirmed.

**Conclusion & Significance:** The low-grade polymorphic adenocarcinoma is a rare malignant neoplasm that affects the salivary glands whose potential for malignancy, recurrence and metastasis are relatively low.

**Audience Take Away:**

- Definition of Adenocarcinoma
- Clinical and histopathological characteristics of Oral Adenocarcinoma
- Forms of treatment
- Description of a surgical clinical case
- The dental surgeon must know how to identify neoplasms and their forms of treatment, avoiding worse stages of pathologies

**Biography:**

Lohana Maylane Aquino Correia de Lima is a Dental Surgeon and Master's student in integrated clinics at the Federal University of Pernambuco, Brazil; Currently, she is an intern at Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco, being a member of the projects care for patients with oral diseases and facial traumas, the project prevention and treatment of cancer in face and mouth regions in Venturosa-Pernambuco-Brazil and the project intitled Use of Traditional Chinese Medicine in the treatment of patients with temporomandibular disorders. In 2019 was invited by the Peruvian Army to give a conference at the 30th National Congress of Military Police Dentistry Ejército del Perú. In 2020 and 2021, she won several awards for presentations of scientific works and was International Keynote speaker in the United States, France and England.



## Fibrous hyperplasia caused by maxillary sinus decompression device

Thayna Lacerda Almeida<sup>1</sup>, Victor Leonardo Mello Varela Ayres de Melo<sup>1</sup>, Rayane Pereira de Araujo<sup>1</sup>, Evellyn Maria Silva De Almeida<sup>1</sup>, Edith Maria Feitosa El-Deir<sup>1</sup>, Lohana Maylane Aquino Correia de Lima<sup>2</sup>, Frederico Marcio Varela Ayres de Melo Junior<sup>3</sup>, Julia de Souza Beck<sup>4</sup>, Maria Luisa Alves Lins<sup>5</sup>, Rodrigo Henrique Mello Varela Ayres de Melo<sup>6</sup>, Milena Mello Varela Ayres de Melo<sup>7</sup>, Esdras Marques da Cunha Filho<sup>7</sup>, Jussara Diana Varela Ayres de Melo<sup>8</sup>, Nely Dulce Varela de Melo Costa Freitas<sup>9</sup>, Bruna Heloísa Costa Varela Ayres de Melo<sup>10</sup>, Anna Luiza Konig Hunka<sup>11</sup>, Renata Araujo Varela Ayres de Melo<sup>12</sup>, Zelia De Albuquerque Seixas<sup>13</sup>, Neme Portal Bustamante<sup>14</sup>, Juan Carlos Barrenechea Montesinos<sup>15</sup>, Jorge Pontual Waked<sup>16</sup>, Filipe Cavalcanti de Andrade Lima Brito<sup>17</sup>, Jose Leonardo de Paiva e Souza<sup>18</sup>, Ricardo Eugenio Varela Ayres de Melo<sup>19</sup>

<sup>1</sup>Undergraduate dental student, Federal University of Pernambuco - Recife, Pernambuco, Brazil.

<sup>2</sup>Dental Surgeon; Master degree student in dental clinics, Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>3</sup>Dental Surgeon, Maurício de Nassau University – Natal, Rio Grande do Norte, Brazil.

<sup>4</sup>Undergraduate dental student, Maurício de Nassau University – Natal, Rio Grande do Norte, Brazil.

<sup>5</sup>Dental Surgeon, Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>6</sup>General Surgeon, Southern Society Divine Providence Hospital, Rio Grande do Sul, Brazil.

<sup>7</sup>Undergraduate Medical Student, Olinda Medical Faculty, Olinda, Pernambuco, Brazil.

<sup>8</sup>Physiotherapist, Faculty of Communication Technology and Tourism, Olinda, Pernambuco, Brazil.

<sup>9</sup>Physiotherapist, University Maurício de Nassau, Recife, Pernambuco, Brazil.

<sup>10</sup>Undergraduate dental student, UNIFACEX – Natal, Rio Grande do Norte, Brazil.

<sup>11</sup>Undergraduate Medical Student, FITS – Recife, Pernambuco, Brazil.

<sup>12</sup>Undergraduate Medical Student, Maurício de Nassau University, Recife, Pernambuco, Brazil.

<sup>13</sup>College Professor of Dentistry Course, Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>14</sup>College Professor of Dentistry Course, University National Federico Villarreal, Lima, Peru.

<sup>15</sup>Dental Health of the Army of Peru, Peruvian Army, Lima, Peru.

<sup>16</sup>College Professor of Dentistry Course; Federal University of Campina Grande, Campina Grande, Paraiba, Brazil.

<sup>17</sup>Physiotherapist; Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>18</sup>Physiotherapist at University open of Therapist- Pernambuco, Brazil.

<sup>19</sup>Head of Department of Bucofacial of Dentistry Course; Coordinator of the Specialization Course in Oral Maxillofacial Surgery and Traumatology, Federal University of Pernambuco, Recife, Pernambuco, Brazil

**Introduction:** Fibrous hyperplasia is a lesion characterized by the formation of epithelial tissue and fibrous connective tissue in response to chronic trauma or local irritation. It is often located in regions close to the alveolar ridge, cheek mucosa, tongue and lower lip, and may present atypical locations, such as the maxillary sinus.

**Aim:** The aim of this study is to report the clinical case of a patient affected by fibrous hyperplasia in the left maxillary sinus, caused by a decompression device.

**Case report:** The patient came to the Oral and Maxillofacial Surgery and Traumatology Outpatient Clinic of the Federal University of Pernambuco complaining of a foul-smelling secretion that came out of the nasal and oral cavities. During the anamnesis, he reported having performed decompression surgery at the affected site approximately seven years ago at another service and,

after being discharged from the hospital, he did not return for reassessment. The intraoral clinical examination revealed a hyperplastic, normochromic lesion, involving a foreign body in the left maxillary sinus region. An incisional biopsy of the lesion was performed, resulting in the diagnosis of fibrous hyperplasia. Surgical treatment was recommended, using the Caldwell-Luc technique to access the maxillary sinus region. Surgery proceeded with removal of the foreign body and resection of the lesion. The patient was followed up for 7, 15, 30, 60, 90, 180 days and annually, without signs of recurrence.

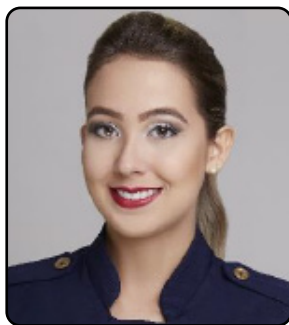
**Conclusion & Significance:** The Caldwell-Luc technique allows easy access to the maxillary sinus and its use is frequently described in the literature for the removal of foreign bodies, as well as for the treatment of pathological processes in the region. The patient is under follow-up, with no complaints or episodes of recurrence of the inflammatory process.

**Audience Take Away:**

- Definition and characteristics of Fibrous Hyperplasia
- Learn the main clinical findings to diagnose the Fibrous Hyperplasia
- Forms of treatment
- Description of a surgical clinical case

**Biography:**

Thayna Lacerda is undergraduate Dentistry student of Federal University of Pernambuco. She is an intern at Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco, being a member of the projects care for patients with oral diseases and facial traumas, the project prevention and treatment of cancer in face and mouth regions in Venturosa – Pernambuco - Brazil and the project intitled Use of Traditional Chinese Medicine in the treatment of patients with temporomandibular disorders.



## Traumatic neuroma in impacted third molar and the use of computed tomography for evaluation of lower alveolar nerve: Analysis of the literature and case report

Julia de Souza Beck<sup>1</sup>, Lohana Maylane Aquino Correia de Lima<sup>2</sup>, Frederico Marcio Varela Ayres de Melo Junior<sup>3</sup>, Anna Luiza Konig Hunka<sup>4</sup>, Victor Leonardo Mello Varela Ayres de Melo<sup>5</sup>, Rayane Pereira de Araujo<sup>5</sup>, Evelyn Maria Silva De Almeida<sup>5</sup>, Edith Maria Feitosa El-Deir<sup>5</sup>, Thayna Lacerda Almeida<sup>5</sup>, Maria Luisa Alves Lins<sup>6</sup>, Rodrigo Henrique Mello Varela Ayres de Melo<sup>7</sup>, Milena Mello Varela Ayres de Melo<sup>8</sup>, Esdras Marques da Cunha Filho<sup>8</sup>, Jussara Diana Varela Ayres de Melo<sup>9</sup>, Nely Dulce Varela de Melo Costa Freitas<sup>10</sup>, Bruna Heloisa Costa Varela Ayres de Melo<sup>11</sup>, Renata Araujo Varela Ayres de Melo<sup>12</sup>, Zelia De Albuquerque Seixas<sup>13</sup>, Neme Portal Bustamante<sup>14</sup>, Juan Carlos Barrenechea Montesinos<sup>15</sup>, Jorge Pontual Waked<sup>16</sup>, Filipe Cavalcanti de Andrade Lima Brito<sup>17</sup>, Jose Leonardo de Paiva e Souza<sup>18</sup>, Ricardo Eugenio Varela Ayres de Melo<sup>19</sup>

<sup>1</sup>Undergraduate dental student, Mauricio de Nassau University – Natal, Rio Grande do Norte, Brazil.

<sup>2</sup>Dental Surgeon; Master degree student in dental clinics, Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>3</sup>Dental Surgeon, Mauricio de Nassau University – Natal, Rio Grande do Norte, Brazil.

<sup>4</sup>Undergraduate Medical Student, FITS – Recife, Pernambuco, Brazil.

<sup>5</sup>Undergraduate dental student, Federal University of Pernambuco - Recife, Pernambuco, Brazil.

<sup>6</sup>Dental Surgeon, Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>7</sup>General Surgeon, Southern Society Divine Providence Hospital, Rio Grande do Sul, Brazil.

<sup>8</sup>Undergraduate Medical Student, Olinda Medical Faculty, Olinda, Pernambuco, Brazil.

<sup>9</sup>Physiotherapist, Faculty of Communication Technology and Tourism, Olinda, Pernambuco, Brazil.

<sup>10</sup>Physiotherapist, University Mauricio de Nassau, Recife, Pernambuco, Brazil.

<sup>11</sup>Undergraduate dental student, UNIFACEX – Natal, Rio Grande do Norte, Brazil.

<sup>12</sup>Undergraduate Medical Student, Mauricio de Nassau University, Recife, Pernambuco, Brazil.

<sup>13</sup>College Professor of Dentistry Course, Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>14</sup>College Professor of Dentistry Course, University National Federico Villarreal, Lima, Peru.

<sup>15</sup>Dental Health of the Army of Peru, Peruvian Army, Lima, Peru.

<sup>16</sup>College Professor of Dentistry Course; Federal University of Campina Grande, Campina Grande, Paraiba, Brazil.

<sup>17</sup>Physiotherapist; Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>18</sup>Physiotherapist at University open of Therapist- Pernambuco, Brazil.

<sup>19</sup>Head of Department of Bucofacial of Dentistry Course; Coordinator of the Specialization Course in Oral Maxillofacial Surgery and Traumatology, Federal University of Pernambuco, Recife, Pernambuco, Brazil

**Introduction:** It is known that traumatic neuroma is caused due to the proliferation of a nerve, consequent to a rupture of its ligaments after surgery and/or injury to the head and neck region. It is diagnosed, above all, in middle age and shows a predilection for the female sex. Clinically it presents as a firm nodule so painful that it is usually seen in the area of the mentonian foramen, tongue and lower lip. The extraction of third molars is frequent, especially when it comes to the lack of space in them. The inferior scans may be related to the lower alveolar nerve, contributing to the increase of nerve injury during surgery. However, the use of complementary imaging tests is essential as prevention.

**Objective:** The objective of this study is to report the clinical case of a patient who developed a traumatic neuroma in the right mandibular region after exodontia of the third molar.

**Case Report:** Female patient, 26 years old, sought the Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco, reporting loss of sensitivity of the right lower lip. During anamnesis the patient reported that she had undergone an exeresis surgery of impacted teeth 3 years ago. On imaging (panoramic) examination, it presented rupture of the right lower alveolar nerve associated with a radiolucent mass. The patient underwent an incisional biopsy confirming the diagnosis of traumatic neuroma. Therefore, it is noted the importance of effective and accurate radiographic evaluation before extractions of the third molars, in order to avoid complications during surgery. Among the most used complementary tests are

panoramic radiographs and tomographies, with their specific indications for different situations. The panoramic is very useful in identifying the anatomical variations presented by the mandibular canal. On the other hand, tomography is more efficient because it provides the image with a lower degree of distortion and three-dimensional, in addition, it has a lower radiation dose.

**Conclusion:** Computed tomography evaluation is important to highlight the nerves and thereby not injure them during extraction. It has been the most effective measure found today and consists of the correct diagnosis, anatomical and technical knowledge of the professional. The patient underwent an incisional biopsy confirming the diagnosis of traumatic neuroma. Therefore, it is noted the importance of effective and accurate radiographic evaluation before extractions of the third molars, in order to avoid complications during surgery.

**Audience Take Away:**

- Learn about traumatic neuroma consequent to a rupture of its ligaments after surgery.
- The objective is to report the clinical case of a patient who developed a traumatic neuroma in the right mandibular region after exodontia of the third molar.
- Learn about the importance of effective and accurate radiographic evaluation before extractions of the third molars, in order to avoid complications during surgery.

**Biography:**

Julia de Souza Beck is a Dental School academic in Maurício de Nassau University, BR; Currently, an intern at Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco. As a member of the project to care of patients with oral diseases and facial traumas, project entitled prevention and treatment of cancer in face and mouth areas in Venturosa-Pernambuco-Brazil, and Use of Traditional Chinese Medicine in the treatment of patients with temporomandibular disorders.



## Histological features of kidney observed through conventional microscope and paper microscope

**Sushanta Paudel**

Nepalese Army Institute of Health Sciences, Nepal

**Introduction:** Paper microscope (Fold scope), one of the latest inventions in the field of science is an ultra-low cost, portable, versatile, and water proof microscope which does not require electricity. The aim of this research was to compare histological features of kidney observed in the normal microscope and fold scope. This research is focused on the comparison of the histological features of kidney observed in the conventional microscope and fold scope under 100X.

**Method:** This comparative study was conducted in Department of Anatomy, Nepalese Army Institute of Health Sciences, and Nepal. All histological slides of kidneys present at Department of Anatomy during June 2019- September 2019 were included in this study.

**Result:** A total of 25 samples were viewed under the conventional laboratory microscope (C x L and Paper Microscope (Fold scope). Fold scope observers were able to distinguish the histological features of the cortex and the medulla of the kidney along with the difference in the luminal size and the staining of the cells in the cortex and the medulla of the kidney. In comparison to conventional microscope, 5 (20%) of samples, observers were able to distinguish the features of the cells lining the tubules of the cortex and in 6 (24%) of samples, observers were able to distinguish the features of the cell lining collecting duct and straight tubules of loop of Henley of medulla using Fold scope.

**Conclusion:** Paper microscope can be a useful alternative of conventional microscope in low resource settings for the identification of the histological samples.



## Stent management of leaks after bariatric surgery: A systematic review and meta-analysis

Andreu Martinez Hernandez<sup>1</sup>, Miguel Ibanez Belenguer<sup>1</sup>, Raquel Queralt Martin<sup>1</sup>, Ana Karina Maiocchi Segredo<sup>1</sup>, Elena Aliaga Hilario<sup>1</sup>, Jose Manuel Laguna Sastre<sup>1</sup>, Homero Beltran Herrera<sup>1</sup>, Vicente Martinez Garcia<sup>2</sup>

<sup>1</sup>Department of General Surgery, University General Hospital, Castellon, Spain

<sup>2</sup>Professor of Applied Mathematics, Department of Mathematics, Jaume I University, Castellon, Spain

**Introduction:** Despite the low rates of complications of bariatric surgery, gastrointestinal leaks are major adverse events that increase post-operative morbidity and mortality. Endoscopic treatment using self-expanding stents has been used in the therapeutic management of these complications with preliminary good results.

**Aim:** The aim of our study was to examine the safety and efficacy of the use of stents for the treatment of leakage after bariatric surgery.

**Methods:** We performed a systematic review and meta-analysis of self-expanding stents placement for the management of gastrointestinal leaks after obesity surgery. Overall proportion of successful leak closure, stent migration and reoperation were analysed as primary outcomes. Secondary outcomes were patients' clinical characteristics, duration and type of stent, other stent complications, and mortality.

**Results:** A meta-analysis of studies reporting stents (between 2005 and 2020) was performed, including 488 patients. The overall proportion of successful leak closure was 85.89 % (95% CI, 82.52- 89.25%), median interval between stent placement and its removal of 44 days. Stent migration was noted in 18.65 % (95% CI, 14.32-22.98%) and the overall proportion of re- operation was in 13.54 % (95% CI, 9.94-17.14%). The agreement between reviewers for the collected data gave a Cohen's value of 1.0. No deaths were caused directly by complications with the stent placement.

**Conclusion:** Self- expanding stents can be used for the management of gastrointestinal leaks after bariatric surgery with a high rate of effectiveness and a low mortality rates. Nevertheless, reintervention and stent migration represents a real problem with rates as high as 13.54% and 18.65 %, respectively. Therefore, more studies (probably, endoscopic combined methods) are still needed to establish a definitive basis for leak management after bariatric surgery and reduce migration rates.

### Audience Take Away:

- Self-expanding stents can be used for the management of gastrointestinal leaks after bariatric surgery with a high rate of effectiveness and a low mortality rates. Nevertheless, reintervention and stent migration represents a real problem with rates as high as 13.54% and 18.65 %, respectively. Therefore, more studies (probably, endoscopic combined methods) are still needed to establish a definitive basis for leak management after bariatric surgery and reduce migration rates.

### Biography:

Andreu Martinez Hernandez et al have his expertise in evaluation and passion in improving the health and wellbeing. Their open and contextual systematic review based on responsive constructivists creates new pathways for improving healthcare. They reported the largest review of patients treated with stents for leak closure after bariatric surgery, focused on the most commonly used endoscopic therapy for leak closure after bariatric surgery, SEMS. They presented an important resource for the management of GI leaks after bariatric surgery with a high rate of effectiveness and a low mortality rates. This approach is responsive to all stakeholders and has a different way of focusing bariatric surgery complications.



## A benchtop model of endothelial surface layer under perfusion

Haymet, AB<sup>1,2,3</sup>; Heinsar, S<sup>1,2</sup>; Suen, JY<sup>1,2</sup>; Fraser, JF<sup>1,2</sup>; Wilson, ES<sup>2</sup>; Passmore, MR<sup>2</sup>; Bartnikowski N<sup>4</sup>; Vallely, MP<sup>5</sup>

<sup>1</sup>Faculty of Medicine, University of Queensland, St Lucia, QLD 4067, Australia

<sup>2</sup>Critical Care Research Group, the Prince Charles Hospital, Chermside, QLD 4032, Australia

<sup>3</sup>Department of Vascular Surgery, Royal Brisbane and Women's Hospital, Herston, QLD 4006, Australia

<sup>4</sup>Queensland University of Technology, Gardens Point, QLD 4000, Australia

<sup>5</sup>Department of Cardiovascular Surgery, Mount Sinai Morningside/ Icahn School of Medicine New York NY, United States of America

**Objective:** The glycocalyx forms a vital component of the endothelial surface layer (ESL), and assists in the regulation of vascular tone, cell-cell signalling, inflammation, and maintenance of vascular barrier function. There are a range of scenarios where the endothelial surface layer is exposed to a shift in flow pulsatility. One example is bypass graft surgery, where a vein conduit becomes arterialized. Another example is mechanical circulatory support, such as during cardiopulmonary bypass (CPB) or extracorporeal membrane oxygenation (ECMO), where blood flow is frequently steady state rather than pulsatile flow. We hypothesize that the shift from steady state to pulsatile flow would trigger a measurable, structural change in the glycocalyx component of the ESL. The objective was to construct a benchtop, in vitro microvascular model capable of imaging endothelial glycocalyx under steady state and pulsatile flow conditions.

**Methods:** A custom flow loop consisting of a Harvard P70 roller pump, silicone tubing (diameter 2.79mm) and cell media reservoirs was assembled. Pooled donor human umbilical vein endothelial cells (HUVECs) were cultured according to standard protocols and seeded using aseptic technique within sterile Y-configuration channel slides. All perfusion was performed using complete endothelial growth media. Following steady state flow for 18 hours, channel slides were allocated to control group (zero flow), steady state flow (SS, 10 dyne/cm<sup>2</sup>), and pulsatile flow (7.5-22.5 dyne/cm<sup>2</sup> at 50bpm) for a further 6 hours (Figure 1). All channel slides were then fixed with paraformaldehyde. Staining was performed with fluorescein labelled wheat germ agglutinin (FITC-WGA) for glycocalyx components and 4',6-diamidino-2-phenylindole (DAPI) for nuclear staining. Slides were then sent for confocal microscopy.



**Results:** 18 hours of preconditioning and 6 hours of steady state flow were completed. Imaging data of the HUVEC monolayer from confocal microscopy with immunofluorescence staining was obtained (Figure 2a). Z-stacking was performed which allowed calculation of ESL thickness. Imaging analysis and postprocessing was performed with ImageJ software (National Institutes of Health, Maryland, USA). Images were thresholded to binary format prior to measurement of mean fluorescence intensity (Fig 2b). Mean fluorescence intensity was highest at a vertical thickness of 5 μm from the base of the channel slide (Figure 2c)), which may be used as a surrogate for the upper limit of endothelial surface layer thickness.

**Conclusion:** A benchtop model which can study the ESL in vitro, including the glycocalyx, under perfusion has been constructed. Components of the ESL were identified on immunofluorescence staining with a maximum mean fluorescence intensity occurring



at a vertical distance of  $5\mu\text{m}$  from the base of the slide, which may be used as a surrogate for the upper limit of ESL thickness. This model may have potential relevance when prescribing flow settings, and flow delivery (steady state versus pulsatile) for critically ill patients receiving mechanical circulatory support, as well as relevance in the pathophysiology of bypass graft failure. Further research is required to correlate changes in ESL thickness with functional vascular endpoints (e.g. vascular barrier function, immuno-inflammatory feedback, and coagulation).

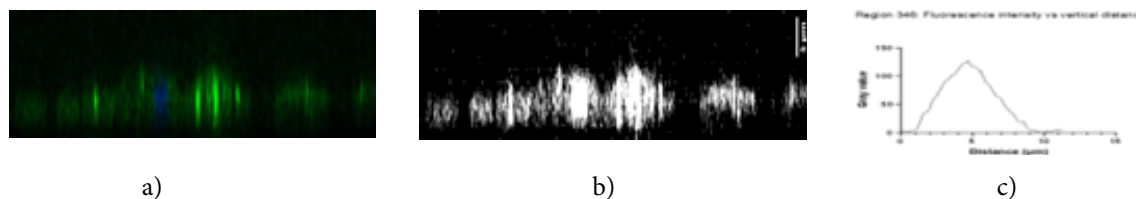


Fig 2:

- a) Cross section of channel slide with immunofluorescence staining. Green = FITC-WGA staining of endothelial surface layer, blue = DAPI staining of cell nuclei.
- b) Cross section of channel slide with immunofluorescence staining, in binary threshold format (postprocessed).
- c) Histogram: Mean fluorescence intensity vs vertical distance, used as a surrogate marker of endothelial surface layer thickness.

#### Audience Take Away:

- The glycocalyx lines the luminal surface of blood vessels, and over the last 15-20 years, has been recognized as playing an increasingly important role in pathophysiology (e.g. loss of vascular barrier function, thrombosis) in conditions such as sepsis, ischaemia, and trauma
- Whilst this layer is incredibly small (1-5 micron thick), it is crucial for vascular homeostasis.
- This study aims to demonstrate that the endothelial surface layer is a highly dynamic entity, which can be readily destroyed during a range of physiological insults, and equally can adapt very quickly to altered haemodynamic conditions
- More research needs to be performed linking preservation of glycocalyx, with improved clinical outcomes (e.g. third spacing due to loss of vascular barrier function, arterial and venous thrombosis). This is applicable to areas such as cardiovascular surgery (bypass graft failure) and critical care (extracorporeal mechanical circulatory support)

#### Biography:

Andrew Haymet is a Vascular Surgical Registrar at Royal Brisbane and Women's Hospital, Queensland, Australia, and a PhD Candidate at the University of Queensland. He completed a Bachelor of Engineering (Mechanical)(Hons1) at the University of Sydney, followed by a Bachelor of Medicine/Bachelor of Surgery (MBBS) at the University of Notre Dame, Sydney. He has published several papers in peer-reviewed journals in the fields of vascular surgery, mechanical circulatory support, and vascular biology. Outside of academia and surgery, his interests include road cycling.

# KEYNOTE FORUM

## DAY 02

3<sup>RD</sup> EDITION OF GLOBAL  
CONFERENCE ON

**SURGERY AND  
ANESTHESIA**

**14-15** SEPT



## Sagar A. Jawale

Jawale Institute of Pediatric Surgery, India

### Stem cell therapy for Type 1 Diabetes

**Introduction:** I invented an Omental Pouch Stem Cell Operation for children below 10 years and Intrapancreatic Stem Cell Implantation operation for Type 1 diabetes patients above 10-year age. Both the operations are reported for the first time in the medical literature.

**Materials and Methods:** Institutional Ethical Committee clearance taken. Last 5 years I treated 21 patients of Type 1 diabetes with Omental Pouch Stem Cell Operation where autologous bone marrow derived stem cells were put into an omental pouch and peritoneum. Age range was 6 months to 10 years. In the same time span 23 patients were treated with Intrapancreatic Stem Cell Implantation. 26 patients were put as control group who were treated with insulin. Age range was 10 years to 53 years. Blood sugar F/PP, Anti GAD antibody titer, Glycosylated Hb and C peptide levels were done before the therapy and thereafter at every 3 monthly intervals.

**Procedure:** 100-150 ml bone marrow was extracted from iliac crest and stem cells extracted by centrifuge with density gradient method. 50% stem cells were implanted in an omental pouch and remaining 50% intraperitoneally. In intrapancreatic group, all stem cells were put into pancreatic artery by femoral route.

**Results:** No significant side effects were noted in both groups. For Omental pouch group, at the end of 6 months, 7 patients went off insulin and are free of insulin till two years after therapy. Remaining 14 patient's insulin requirements dropped to 50 % and sugar levels dropped from 50-75 % into the normal range. Anti- GAD antibody titer dropped to about 50-75 % in 6 month indicating reversing of auto immunity. C peptide levels increased 50 % than before indicating increased endogenous insulin production. In intrapancreatic group, 15 patients went off Insulin at the end of one year. Remaining 8 patient's insulin requirements dropped to 50 % and sugar levels dropped from 50-75 % into the normal range.

**Discussion:** Scientists grew human stem cells in hyperglycemic environment in petri dishes and at the end of 3 months these cells transformed into pancreatic islet like cells and started producing insulin a phenomenon called plasticity. Stem cells were put into the peritoneal cavity of diabetic animals and these cells produced insulin at the end of 3 months. Stem cells given IV in diabetic animals repaired the damaged islet cells and also regenerated the islets of Langerhans. Stem cells given IV repaired the faulty signatures in T cells in an epigenetic manner and reversed autoimmunity. Above experiments are the foundations of stem cell therapy for Type 1 diabetes in humans. Peritoneal cavity has only 10% cellular immunity and Omentum has negligible immunity on its surface. Stem cells put into an omental pouch creates a new biological pancreas which is protected from auto immunity. Only 2% stem cells enter pancreas when put IV. In intrapancreatic route nearly 98% cells enter pancreas leading to much better results.

**Conclusions:** Stem cell therapy in type 1 diabetes is safe and effective. My center developed world's first as well as the world's cheapest stem cell therapy costing only USD 1000 instead of USD 100000 in USA.

# **SPEAKERS**

## **DAY 02**

**3<sup>RD</sup> EDITION OF GLOBAL  
CONFERENCE ON**

# **SURGERY AND ANESTHESIA**

---

# **14-15** **SEPT**



## Post COVID-19 Multi-System Inflammatory (mis) Syndrome masquerading as an acute abdomen a literature review and case series

**Ali Baker\*, Howard Tang, Russel Krawitz**

The Western Health, Australia

**Introduction:** Recently a potentially fatal syndrome associated with COVID-19 infection termed multisystem inflammatory syndrome (MIS) has been described in adults (MIS-A). The syndrome presents weeks after recovery from the acute phase of the illness, and is thought to be due to a dysregulated host immune response. Clinical features may include: fever, abdominal pain, and localized abdominal peritonism. Therefore the syndrome can sometimes present like an acute surgical abdomen. 51% of MIS-A patients will require vasopressor support for shock, and the mortality rate is up to 7 %. Awareness of this condition by the surgical team, and early referral to the medical team for appropriate immunosuppressive therapy, can help prevent morbidity and mortality for these sometimes misdiagnosed patients.

**Objectives:** The primary objective of the study was to review the literature. Furthermore, we describe the presentation, investigation and management of two cases that occurred at a single centre.

**Methods:** The records of two cases of MIS-A that occurred at our health service were identified and reviewed. A literature search was conducted through Ovid database with the keywords 'MIS-A' and 'COVID-19'.

**Results:** MIS-A was diagnosed in two female patients (median age 30.5 years). Both patients presented with abdominal pain, fever, and localized abdominal tenderness. Computed tomography showed intestinal wall thickening (1/2) and mesenteric lymphadenopathy (2/2). Complications included ischemic changes on electrocardiogram (2/2), cardiogenic shock (1/2), and vasopressor requirement (1/2). Median length of admission was 11.5 days. Although rare the exact incidence of MIS-A is unknown.

**Conclusion:** General surgeons must have a high index of suspicion for MIS-A in a patient that has recently contracted COVID-19 and has presented like an acute abdomen.

### Biography:

The presenter Ali Baker is a general surgical trainee at Western Health in Melbourne, Australia. He has a passion for clinical and lab-based research. He has completed lab based research at Duke University which has recently been published in Cell as part of a collaborative effort.



## Mechanical circulatory support: Modelling cannula dependent arterial inflow

Andrew B. Haymet<sup>\*1,2,3</sup>, Boone, A<sup>2,3,4</sup>, Suen, JY<sup>1,2,3</sup>, Fraser, JF<sup>1,2,3</sup>, Pauls, JP<sup>2,3,4</sup>, Vallely, MP<sup>5</sup>, Malfertheiner, MV<sup>6</sup>

<sup>1</sup>Faculty of Medicine, the University of Queensland, Brisbane, QLD, Australia

<sup>2</sup>Critical Care Research Group (CCRG), the Prince Charles Hospital (TPCH), Brisbane, QLD, Australia

<sup>3</sup>Innovative Cardiovascular Engineering and Technology Laboratory (ICETLAB), CCRG, TPCH, Brisbane, QLD, Australia

<sup>4</sup>School of Engineering and Built Environment, Griffith University, Southport, QLD, Australia

<sup>5</sup>Division of Cardiac Surgery, the Ohio State University Wexner Medical Center, Columbus, Ohio, United States of America

<sup>6</sup>Department of Internal Medicine II, University Hospital Regensburg, Regensburg, Germany

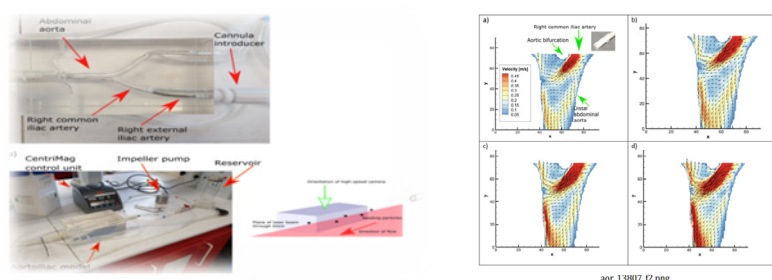
**Background:** Limb ischemia is a major complication associated with peripheral veno-arterial extracorporeal membrane oxygenation (VA ECMO). The high velocity jet from arterial cannulae can cause sandblasting injuries to the arterial endothelium, with the potential risk of distal embolization and end organ damage.

**Aim:** The aim of this study was to identify, for a range of clinically relevant VA ECMO cannulae and flow rates, any regions of peak flow velocity on the aortic wall which may predispose to vascular injury, and any regions of low velocity flow which may predispose to thrombus formation.

**Methods:** A silicone model of the aortic and iliac vessels was sourced and the right external iliac artery was cannulated. Cannulae ranged from 15 – 21 Fr in size. Simulated steady state ECMO flow rates were instituted using a magnetically levitated pump (CentriMag pump). Adaptive particle image velocimetry was performed for each cannula at 3, 3.5, 4 and 4.5 L/min.

**Results:** For all cannulae, in both horizontal and vertical side hole orientations, the peak velocity on the aortic wall ranged from 0.3 m/s - 0.45 m/s, and the regions of lowest velocity flow were 0.05 m/s. The magnitude of peak velocity flow on the aortic wall was not different between a single pair versus multiple pairs of side holes. Maximum velocity flow on the aortic wall occurred earlier at a lower pump flow rate in the vertical orientation of distal side holes compared to a horizontal position. The presence of multiple paired side holes was associated with fewer low velocity flow regions, and some retrograde flow, in the distal abdominal aorta compared to cannulae with a single pair of side holes.

**Conclusion:** From this in vitro visualization study, the selection of a cannula design with multiple versus single pairs of side holes did not change the magnitude of peak velocity flow delivered to the vessel wall. Cannulae with multiple side holes were associated with fewer regions of low velocity flow in the distal abdominal aorta. Further in vivo studies, and ideally clinical data would be required to assess any correlation of peak velocity flows with incidence of vascular injury, and any low velocity flow regions with incidence of thrombosis.



**Audience Take Away:**

- Extracorporeal membrane oxygenation (ECMO) is a form of mechanical circulatory support which can be applied in a venoarterial (VA) format for refractory cardiogenic shock, or a venovenous (VV) format for respiratory failure
- ECMO flow is delivered via either central cannulation of the great vessels, or peripherally via jugular, axillary or femoral vessels
- Cannulation and ECMO flow is associated with vascular complications, such as limb ischaemia and thromboembolism
- There are very limited data available in the literature evaluating the effects of different cannula designs and flow rates on the vessel wall, and the risk of injury
- This study assessed a range of different cannula designs across multiple flow rates. There was no difference in peak velocity delivered to the aortic wall between cannulae with and without multiple side holes. Cannulae with a multiple side-hole design demonstrated fewer regions of low velocity flow in the abdominal aorta. This may be relevant when considering the risk of vessel injury (e.g dissection, thrombosis) during cannula selection for ECMO support

**Biography:**

Andrew Haymet is a Vascular Surgical Registrar at Royal Brisbane and Women's Hospital, Queensland, Australia, and a PhD Candidate at the University of Queensland. He completed a Bachelor of Engineering (Mechanical)(Hons1) at the University of Sydney, followed by a Bachelor of Medicine/Bachelor of Surgery (MBBS) at the University of Notre Dame, Sydney. He has published several papers in peer-reviewed journals in the fields of vascular surgery, mechanical circulatory support, and vascular biology. Outside of academia and surgery, his interests include road cycling.



## New trends in ex vivo donor heart perfusion

**Pavel Ermolaev\*, Tatyana Khramykh**

Omsk State Medical University, Russian Federation

The problem of preserving the viability of donor organs is relevant for experimental and clinical transplantation. The need for further development is associated with a global shortage of donor organs of ideal quality, with the need to prolong the terms of their guaranteed conservation to improve the logistics of the transplant process, as well as to ensure the restoration of the viability of initially compromised donor organs obtained from donors with extended evaluation criteria. The report will present methods for the preservation of the donor heart, indicate further ways to improve technologies in this area, in particular, options such as extracorporeal perfusion of the heart will be considered.

### Biography:

Pavel Ermolaev studied Medicine at the Omsk State Medical University, Russia and graduated in 2009. He then joined the research group of Prof. Dolgikh at the same institution. He received his PhD degree in 2017. After two years postdoctoral fellowship supervised he obtained the position of an Associate Professor at the Omsk State Medical University. He has published more than 50 research articles in journals.





## Necrotizing fasciitis - A lethal soft tissue infection: Review article

**Agrawal Srikant\*, Manandhar Kishor**

National Academy of Medical Sciences, Nepal

**Background:** Necrotizing Fasciitis is a rapidly progressive soft tissue infection that is almost fatal without prompt treatment. This review highlights about the basic approach to the diagnosis and treatment of NF.

**Description:** Various nomenclatures have been used to describe necrotizing soft tissue infections. These infections are classified on the basis of the microbes involved, depth of invasion and anatomical sites involved. Diabetes is the most common risk factor for NF. The masquerading cutaneous manifestations make the diagnosis of NF a challenge. Laboratory parameters, imaging techniques and scoring systems have been designed to aid in early diagnosis.

**Conclusion:** High index of clinical suspicion is needed to make prompt diagnosis of NF. Urgent aggressive surgical debridement with antimicrobial therapy limits the morbidity and mortality associated with NF.

### **Audience Take Away:**

- Get detailed overviews about Necrotizing Fasciitis including its pathology, clinical features, investigations and treatment.
- Learn about various scoring systems for early diagnosis of NF.

### **Biography:**

Srikant Agrawal received his MBBS degree from Rajshahi Medical College, Rajshahi University and completed Masters in General Surgery at Bir Hospital, National Academy of Medical Sciences in 2021. He previously served as Chief District Health Officer and Medical Superintendent at District Hospital Dolpa, a government hospital at one of the most remote districts of Nepal. In the devastating earthquake of 2015, he was serving as Medical Officer at Charikot Primary Health Care Centre under Ministry of Health and Population of Nepal. He has received various awards in his lifetime including Best Orator Award in TYSA 2020, KMC Excellence Award (2007) and Gold Medals in Anatomy (2009), MBBS (2013) and Prime Minister Gold Medal in Medicine (2013).



## Eponyms in hernia surgery

**Shreya Sengupta**

Frimley park hospital, UK

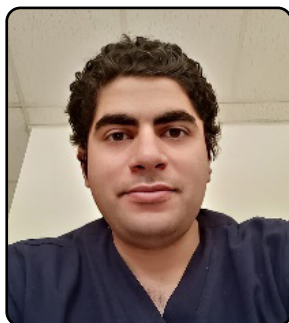
The saying goes The history of hernia repair is the history of surgery. The history of open surgery for groin hernia has gone through many stages of development starting from the Romans, Greeks and the Egyptians. Starting from the use of trusses, taxis for strangulation and routine excision of the genitals from the dark Middle Ages, which have been described by historians as a period of surgery in eclipse and centuries of ignorance? During Renaissance, new surgical knowledge flourished and the foundation of herniology was begun. Hernia surgery saw an upstroke in the late 19th century with initial descriptions by Marcy and Bassini. My paper is a historical recollection on the various controversies, incidents and achievements in the world of hernia. Starting from Marcy versus Bassini- Who is better, to Halsted's, should ice and MacVay's repair, then beginning of era of mesh, to controversies of where to put in mesh and finally to no mesh repair, I have it all here.

### Audience Take Away:

- Various methods of hernia repair
- Famous pioneers of hernia surgery
- Which surgery procedure should be chosen and could be modified for hernia repair

### Biography:

Shreya Sengupta completed MBBS and graduated in 2019 from R. G Kar Medical College and Hospital, Kolkata, India. During her MBBS, she received honors in all the years of curriculum and gold medal in surgery. She is an ATLS provider and served as front liner for COVID 19 pandemic in India as ICU doctor and thereafter worked at Medway NHS foundation trust and Frimley park hospital in England as trust doctor for 2 years in general surgery, trauma and orthopedics. She completed her MRCS in 2022 and currently is a core surgical trainee specializing in plastic surgery at Belfast, Northern Ireland.



## A retained intrahepatic bullet in the bermuda triangle: A case report of surgical extraction

Amr Kassem<sup>\*1</sup>, Mohamed Abdel Wahab<sup>1</sup>, Khalid Marzouk<sup>1</sup>, Hosam Hamed Hamed Asar<sup>1</sup>, Riham M. Abdel Wahab<sup>2</sup>

<sup>1</sup>Gastrointestinal Surgical Center, Mansoura University, Egypt

<sup>2</sup>Radiology Department, Mansoura University, Egypt

We describe a rare case of intrahepatic retained foreign body (bullet). Our patient is a 39-year old Yemeni soldier, who was exposed to firearm injury 10 months previously. The patient sought medical advice to extract the foreign body, and it was successfully extracted through abdominal exploration, with no intraoperative or postoperative complications. Our case was a Yemeni soldier, aged 39 years, who had a firearm injury to the chest before 10 months. The bullet passed through the chest causing massive hemothorax. The condition necessitated exploration through thoracotomy that revealed a tear in the lower lung lobe and a hole in the diaphragm. Hemostasis was done in a Yemeni military hospital and an intercostal tube was placed for ten days. The patient was discharged and his postoperative course was uneventful. Then, the patient had a complaint of right hypochondrial pain. The patient's condition was stable (normal hemodynamics and stable hemoglobin levels), and an abdominal ultrasound revealed minimal intraabdominal free fluid. Besides, other investigations revealed that the bullet was located adjacent to major hepatic vascular structures making surgical removal risky, so conservative management was suggested as long as no complications developed. The patient got anxious as he was reported that the bullet was in a dangerous anatomical zone. Therefore, he sought more experienced advice. He presented to our private clinic in Mansoura city, Egypt, 10 months after injury with the retained bullet. The patient's condition was well-assessed. On examination, the entry wound of the bullet was located in the right hypochondrium. The bullet was situated in the posterior part of segment VIII. Its boundaries were the middle hepatic vein medially, the right hepatic vein laterally, segment VIII anteriorly, and inferior vena cava posteriorly. It was present just below the entrance of both right and middle hepatic veins into the IVC was obtained before surgery. The operation was done under general anesthesia, and abdominal exploration via hockey stick or Kehr incision. The procedure was performed by the first author. After abdominal exploration, there were dense adhesions between the right liver lobe and the diaphragm and thus the transhepatic approach was hazardous. The right hepatic lobe was mobilized by dissection of both coronary and right triangular ligaments. The suprahepatic IVC was also exposed after dissection of its covering peritoneum exposing the superior part of the bare area of the liver. After that, the short hepatic veins passing between the right lobe and IVC were ligated and divided using prolene 4/0 or 5/0 sutures. We did not try to dissect around the right hepatic vein due to the presence of fibrosis which may carry a risk for vascular injury and massive bleeding. This was continued till the appearance of the fibrotic area in the posterior wall of the liver, anterior to the IVC. To enhance the feeling of the foreign body, the assistant gently pushed the hepatic area anterior to the entrance of right and middle hepatic veins into the IVC. This aided the downward movement of the granuloma, and part of the bullet was felt through the fibrous tissue by the operator's hands. The site of the bullet was also confirmed by intraoperative C-arm fluoroscopy. Gentle manipulation was crucial to avoid injury to the middle hepatic vein. The fibrous capsule was carefully opened by coagulation diathermy until there was a sufficient opening for bullet removal. After bullet extraction, good wash and hemostasis were ensured. Blood loss was about 150 mL, and no blood transfusion was done. A drain was inserted in the Morrison pouch. The operative time was 90 min.

### Audience Take Away:

- The diagnosis of foreign body granuloma can be more challenging when the lesion has neoplasia like radiological findings. Poyanli and his associates reported a foreign body granuloma mimicking liver metastasis in their case report. Detailed history taking is essential to differentiate between such lesions. History of penetrating trauma, previous surgery, and chronic exposure could justify the diagnosis of foreign body granuloma.

**Biography:**

Amr Kassem studied general surgery at Mansoura Faculty of Medicine. During his study, he then joined the Gastrointestinal Surgery Center, Mansoura University. He received his master's degree in 2022 at the same institution. He has published 3 research articles in journals and is working on other 5 projects. During the last 3 years, he participated in more than 700 gastrointestinal surgeries as a main surgeon or assistant with talented hands in laparoscopic and endoscopic gastrointestinal procedures.



## Heart mate 3 left ventricular assist device as a bridge for transplant or destination therapy

**Gustavo L. Knop**

Mayo Clinic, United States

**H**earthMate 3 (HM3) left ventricular assist device (LVAD), a fully magnetically levitated centrifugal-flow pump has been evaluated in MOMENTUM 3, the largest LVAD trial ever conducted demonstrating excellent survival and safety outcomes with HeartMate 3™ LVAD. It has been published in 2021. The series included patients treated as a bridge for Heart transplant and for destination therapy. The trial enrolled 2200 HM3 implanted patients and compared outcomes. The survival rate was 81%, being the highest published 2-year survival rate for any LVAD. The study showed that HM3 patients had the lowest hemocompatibility-related adverse events of any LVAD, with only 9% major strokes and 1% thrombosis complication events at 2 years. HeartMate 3 LVAD provides immediate, significant, and sustained improvements in Functional Capacity and Quality of Life: 79% of patients improved from NYHA Class IIIB/IV at baseline to NYHA Class I/II by 6 months, with sustained better condition in 80% of patients through 2 years ( $P < 0.0001$ ). The quality of life resulted upgraded more than thirty points according to the Kansas City cardiomyopathy (KCCM) score and was solid through 2 years. The average 6 minutes' walk increased from 136 to 323 meters. These results were consistent, despite the inclusion of sicker patients in the second series of enrolment (more intra-aortic balloon pump use and INTERMACS profile1), who were more often intended for destination therapy.

**Conclusions:** The primary results of accumulating HM3 LVAD experience in 2200 patients suggest a lower adverse event burden and similar survival to heart transplantation at 2 years, with higher quality of life compared to other LVAD devices. Although 'unstable' INTERMACS profile 1–2 patients demonstrate slightly lower survival when compared with the more stable INTERMACS 3 profile (who also require inotropic therapy), the composite primary endpoint (survival free of disabling stroke or reoperation to replace or remove a malfunctioning device) is similar between groups. These data provide confidence that the HM3 pump performs well throughout even in the presence of clinical severity and results are consistent in patients for destination therapy and for bridge to transplantation.

### Biography:

Knop is a Cardiovascular Surgeon at Mayo Clinic, Rochester. He has been a Consultant Cardiothoracic Surgeon in UK and Argentina. He is the main author in publications in reputed journals like the J. of Th and CV Surgery, J. of CTH Surgery, among others. He also served as an Editorial Board member in two journals, Reviewer of Medical Journals, and co-Investigator in the EXCEL and ERICCA study. He was a Lecturer at the University of Cordoba and University of the South in Argentina. He is candidate for Instructor of Surgery at Mayo Clinic. His published material served as a reference from other researchers in professional publications in the academic field. He was the speaker in prestigious Symposiums. He graduated with honours at the University of Buenos Aires.



## Meatal - Sparing dorsal onlay vaginal graft urethroplasty for female urethral strictures

**Gunjan Bahuguna**

Grant Medical College, India

**Introduction:** Urethral stricture in females is a rare entity presenting with voiding lower urinary tract symptoms caused by urethral trauma or infection. It is diagnosed by urethral calibration as less than 14 F along with features of bladder outlet obstruction on urodynamics and a narrowed urethra is seen on urethroscopy or VCUG. Conservative options include urethral dilation whereas urethral reconstructive approaches can be by the dorsal or the ventral route with the use of various grafts (buccal/ lingual/ vaginal).

**Objectives:** A case of meatal- sparing dorsal onlay vaginal graft urethroplasty as a variation of the conventional dorsal onlay urethroplasty is described as a definitive treatment of female urethral stricture with favourable results.

**Methods:** A surgical video presents a step-wise procedure of meatal- sparing dorsal onlay vaginal graft urethroplasty.

**Results:** The urethra is dissected in the dorsal plane by a suprameatal inverted-U shaped incision and a dorsal urethrotomy made over the strictured segment, sparing the meatus. Not including the meatus here avoids a widened neo-meatus and possible spraying of urinary stream. Meticulous dissection and staying close to the strictured fibrous urethra preserves sexual function, and limits blood loss from the clitoral neurovascular bundle which is in close proximity; adding to the advantages associated with dorsal conventional approach.

**Conclusion:** Meatal - sparing dorsal onlay vaginal graft urethroplasty can be performed as a slight variation of the standard dorsal urethroplasty in mid and proximal urethral strictures with excellent results.

### Audience Take Away:

- Female urethral strictures are quite rare and may present with bothersome lower urinary tract symptoms in females, conservative methods like dilation have been tried but resulted in needing repetitions and failure, urethroplasty offers a definitive option and has good results.
- A lot of urethroplasty techniques have come in the last decade, and patient tailored modifications of these techniques may help to prevent postoperative complications. Meatal-sparing dorsal onlay vaginal graft urethroplasty is one such modification to improve surgical outcomes in urethroplasty for female urethral strictures.

### Biography:

Gunjan Bahuguna is currently working as an Assistant Professor in the Department of Obstetrics and Gynaecology at Grant Medical College Mumbai. She has done a post-doctoral certificate course in Female Pelvic Medicine and Reconstruction from AIIMS Rishikesh. She is passionate about uplifting the health of women, particularly in the rural areas plagued with a low resource health system and has played leading roles in setting up the department of Obstetrics and Gynaecology in the hills. For her remarkable social work in the rural hills of Uttarakhand, she has been nominated for the Rashtriya Gaurav Award 2022 in India.



## Small bowel obstruction secondary to pica- A rare surgical emergency

Nikita Marathe<sup>1</sup>, Naveen Kasliwal<sup>2</sup>

<sup>1</sup>Junior Resident (III) Department of General Surgery, MGM College and Hospital, India

<sup>2</sup>MS General Surgery, Department of General Surgery, MGM College and Hospital, India

**Background:** Early detection of polyposis syndrome based on clinical features and radiological investigations is important to rule out early malignancy risk. Here we discuss four (4) polyposis cases and their varied presentation and management as follows.

**Case 1** was a 10year old male presenting with double intussusception secondary to polyps suggestive of peutzjeghers polyposis on histology by the presence of a smooth muscle arborization within the lamina propria.

**Case 2** was a 28 years old male who was admitted for blood in stools which on endoscopic examination had multiple hamartomatous intestinal polyp had alopecia and nail changes pointing towards Cronkhite Canada syndrome.

**Case 3** was a 19 years old male with history of mass per rectum and PR bleed was diagnosed to have extensive multiple polyp extending from caecum to rectum suggestive of juvenile rectal polyposis.

**Case 4** was a 45years old male with history of loss of appetite, generalised weakness and intermittent abdominal pain which on contrast enhanced computed tomography and endoscopic evaluation was suggestive of dual malignancy of stomach and colon.

### Audience Take Away:

- Early diagnosis, treatment, and regular follow-up are important for an excellent prognosis in individuals presenting with this rare polyposis syndrome

### Biography:

Nikita Marathe, currently working as a 3rd year General Surgery Resident in Department of General Surgery at MGM Medical College and Hospital, Aurangabad. She has completed her MBBS and graduated from BJMC Medical College And Sassoon Hospital, Pune in 2019. During UG, She received distinction in Anatomy, Biochemistry. She has attended various surgical skills workshops at National and International level. Poster Presentation at APRM 2018 and MASICON 2022. She aspires to become a transplant surgeon after earning her Master's degree and has a special interest in hepatico-pancreatico-biliary surgeries.



## Versatility of midface degloving approach in oral and maxillofacial surgery

**Balamurugan.R \***

RYA COSMO Foundation, India

**Introduction:** Traditional approaches to the midface include the Weber-Fergusson incision and the lateral rhinotomy approach which leave a visible scar on the face. The midfacial degloving approach is used to expose tumors of the maxilla, nasopharynx, orbits and central compartment of the anterior and middle cranial fossae.

**Objectives:** To assess the versatility and accessibility to the midfacial skeleton using midface degloving approach

**Case presentation:** We present 4 cases operated with the midface degloving approach:

- 1) benign maxillary tumor
- 2) maxillary cyst
- 3) quadrangular LeFort1 osteotomy
- 4) panfacial trauma. The patients were orally intubated (to allow for endonasal incisions). This approach entails a maxillary vestibular incision and three intranasal incisions (bilateral intercartilaginous, complete transfixion and bilateral piriform aperture incisions).

**Results:** This approach had favourable outcomes in terms of accessibility and esthetics.

**Conclusion:** This approach gives excellent exposure to entire midface from the root of zygoma from one side to the other including the infraorbital rims, body of zygoma, anterior maxilla, buttress and the pyriform rim. The advantage of this approach is that all incisions are placed within the intraoral and intranasal regions without any scars on the face.

### Biography:

Balamurugan.R is an Oral and Maxillofacial Surgeon and Oral Implantologist from Chennai, India. He initiated his professional career in the field of dentistry and continued his specialisation in the path of Oral and Maxillofacial Surgery (India) and Fellowship in Oral Implantology (International Congress of Oral Implantologists ICOI, USA). His field of expertise in basic dental treatments, dento-alveolar surgeries, maxillofacial trauma, dental implants, medical emergencies, pathologies associated with maxillofacial region, TMJ related disorders. He was awarded as the best PEER REVIEWER by Star Dental Centre Pvt Ltd, India for his sincerity and dedication towards work by adhering to the timelines with a prompt reviewing process. He holds various International and National peer reviewed paper publication that adds credit to his career. He is associated with International and National journals as editor and reviewer board member and he has also been invited as a keynote speaker globally. He also encourages and motivates the authors to explore with new innovative ideas in the field of research. Currently, he is a researcher and walks in the right path of motivation by providing a heart of service for the patients as an Oral and Maxillofacial Surgeon in RYA Cosmo Foundation, Chennai, India.





## Use of indocyanine green fluorescence imaging in the extrahepatic biliary tract surgery

**Orestis Ioannidis**

Aristotle University of Thessaloniki, Greece

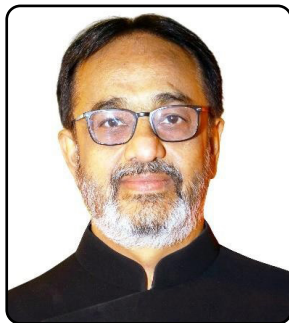
**C**holelithiasis presents in approximately 20 % of the total population, ranging between 10% and 30 %. It presents one of the most common causes for non-malignant surgical treatment. The cornerstone therapy is laparoscopic cholecystectomy, urgent or elective. Laparoscopic cholecystectomy is nowadays the gold standard surgical treatment method; however bile duct injury occurred to as high as 0.4-3% of all laparoscopic cholecystectomies. The percentage has decreased significantly to 0.26-0.7% because of increased surgical experience and advances in laparoscopic imaging the past decade which have brought to light new achievements and new methods for better intraoperative visualization such as HD and 3D imaging system. However, bile duct injury remains a significant issue and indocyanine green fluorescence imaging, mainly cholangiography but also angiography, can further enhance the safety of laparoscopic cholecystectomy as it allows the earlier recognition of the cystic and common bile duct, even in several times before dissecting the Callot triangle. Fluorescence cholangiography could be an ideal method in order to improve bile tree anatomy identification and enhance prevention of iatrogenic injuries during laparoscopic cholecystectomies and also it could be helpful in young surgeons training because it provides enhanced intraoperative safety, but however this method does not replace CVS. Finally, our ongoing current study results comparing intravenous to direct administration of ICG in the gallbladder will be presented.

### Audience Take away:

- ICG fluorescence cholangiography can enhance the safety of laparoscopic cholecystectomy as it allows the earlier recognition of the cystic and common bile duct, even in several times before dissecting the Callot triangle
- The best timing and dosage of ICG administration in order to perform ICG cholangiography and angiography
- ICG fluoresce imaging doesn't replace the critical view of safety

### Biography:

Ioannidis studied medicine in the Aristotle University of Thessaloniki and graduated at 2005. He received his MSC in Medical Research Methodology in 2008 from Aristotle University of Thessaloniki and in Surgery of Liver, Biliary Tree and Pancreas from the Democritus University of Thrace in 2016. He received his PhD degree in 2014 from the Aristotle University of Thessaloniki for his thesis The effect of combined administration of omega-3 and omega-6 fatty acids in ulcerative colitis. Experimental study in rats . He is a General Surgeon with special interest in laparoscopic surgery and surgical oncology and also in surgical infections, acute care surgery, GCSA and ERAS. He has received fellowships for EAES, ESSO, EPC, ESCP and ACS and has published more than 130 articles with more than 3000 citations and an H-index of 28.



## Non-surgical management of obstructive defecation syndrome

**Ajit Naniksingh Kukreja**

Marengo CIMS Hospital, India

Constipation is a frequent symptom in the general population. The prevalence depends on the utilized definition. We usually divide constipation in two types: obstructed defecation or prolonged bowel transit time. Obstructive defecation syndrome (ODS) has become a well-known syndrome with different clinical etiology and symptoms. If we consider ODS an iceberg syndrome, with emerging rocks, rectocele and rectal internal mucosal prolapse, that may benefit from surgery, at least two out of ten patients also has underwater rocks or occult disorders, such as anismus, rectal hyposensation and anxiety/depression, which mostly require conservative treatment.

### Audience Take Away:

- Anorectal Manometry
- Biofeedback
- Medical Management Of ODS

### Biography:

Ajit Naniksingh Kukreja is currently working as the consultant laparoscopy Gastrointestinal & anorectal surgeon at Ratandee surgical hospital & endoscopy clinic / Cims hospital at ahmedabad. He organized workshops where around 180 surgeons all over Asia have had hands on training for hemorrhoidal artery ligation & Rectoanal repair. Into exclusive Anorectal practice for last 32 years. He performed as the faculty to multiple national and international conferences and also as the author to Amazon best seller anorectal surgery made easy – with two interactive DVD roms. He was awarded with the best paper award for anal tonometry – a newer diagnostic aid in Anorectal disorders – Gujsurgcon 2005. He received Elsevier and Publons certified peer reviewer for international journals.



## Surgical management of paediatric meniscal tears – A UK major trauma centre service evaluation

Abdus Samee Wasim<sup>\*1</sup>, Al-Musabi M<sup>2</sup>, Tahir M<sup>3</sup>, Roope J<sup>4</sup>, Quinn D<sup>4</sup>, Patel A<sup>4</sup>

<sup>1,2,3</sup>Birmingham Orthopaedic Training Programme, Birmingham, West Midlands, United Kingdom

<sup>4</sup>Royal Stoke University Hospital, Birmingham, West Midlands, United Kingdom

**Background:** Previous studies have demonstrated that debridement of meniscal tears in the paediatric population leads to poorer long-term outcomes than primary arthroscopic repair, which has led to a shift in the management of these injuries. This study aims to evaluate the current practice in management of paediatric meniscal tears in a UK major trauma centre.

**Methods:** We performed a retrospective review of consecutive paediatric patients (aged <18 years) with traumatic meniscal tears between 2018 and 2020. Patients' clinical notes (digital and paper) were reviewed and the following were extracted: Operation performed (arthroscopic debridement vs repair), performing surgeon Orthopaedic subspecialty (adult or paediatric), intra-operative images (where available), healthcare resource group code allocated to procedure, non-traumatic or saucerisation of discoid meniscus were excluded.

**Results:** 26 cases were included, 65% male, 35% female, median age of 15 years (13-16). 8 cases were performed by a paediatric specialist: 18 by an adult knee surgeon. 62% of cases were meniscal debridement compared to 38% repaired. Comparing orthopaedic specialty, paediatric surgeons performed meniscal repair in 25% (n=2) of their cases, compared to 44% (n=8) of cases performed by adult surgeons. One case had incorrect HRG coding, resulting in a loss of £973 to the department.

**Conclusion:** Surgical management for paediatric meniscal tears was predominantly performed by debridement (62%) compared to repair (38%). Heterogeneity of cases and poor arthroscopic images limited assessment of whether debridement was performed due to lack of skill set or due to meniscal tears that were not amenable to repair. Standardisation of arthroscopic images is recommended to allow classification of tears.

### Audience Takes Away:

- Surgical options for management of paediatric meniscal tears
- Current evidence and implication of managing paediatric meniscal tear with debridement vs repair
- Value of educational refresher courses on meniscal repair to improve surgical skills and reduce frequency of debridement surgery amongst this cohort

### Biography:

Wasim studied sciences at the Queen Elizabeth's School London, United Kingdom developing an appetite for surgery at an early stage. He continued at Bart's & the London School of Medicine, the oldest medical school in the world, graduating in 2014 with an MBBS (distinction) and BSc (Hons) in experimental pathology carrying out research at the Blizard Institute, London. He completed junior surgical training in Birmingham, achieving MRCS (England) and secured a trauma & orthopaedic specialty job on the prestigious Birmingham orthopaedic training programme. He has a keen interest in research and surgical education delivering multiple UK national training courses.



## Resection of submandibular angioliopoma associated with a patient with Von Recklinghausen's disease

Rayane Pereira de Araujo<sup>1</sup>, Evellyn Maria Silva De Almeida<sup>1</sup>, Edith Maria Feitosa El-Deir<sup>1</sup>, Thayna Lacerda Almeida<sup>1</sup>, Renata Victor Leonardo Mello Varela Ayres de Melo<sup>1</sup>, Lohana Maylane Aquino Correia de Lima<sup>2</sup>, Frederico Marcio Varela Ayres de Melo Junior<sup>3</sup>, Julia de Souza Beck<sup>4</sup>, Maria Luisa Alves Lins<sup>5</sup>, Rodrigo Henrique Mello Varela Ayres de Melo<sup>6</sup>, Milena Mello Varela Ayres de Melo<sup>7</sup>, Esdras Marques da Cunha Filho<sup>7</sup>, Jussara Diana Varela Ayres de Melo<sup>8</sup>, Nely Dulce Varela de Melo Costa Freitas<sup>9</sup>, Bruna Heloisa Costa Varela Ayres de Melo<sup>10</sup>, Anna Luiza Konig Hunka<sup>11</sup>, Araujo Varela Ayres de Melo<sup>12</sup>, Zelia De Albuquerque Seixas<sup>13</sup>, Neme Portal Bustamante<sup>14</sup>, Juan Carlos Barrenechea Montesinos<sup>15</sup>, Jorge Pontual Waked<sup>16</sup>, Filipe Cavalcanti de Andrade Lima Brito<sup>17</sup>, Jose Leonardo de Paiva e Souza<sup>18</sup>, Ricardo Eugenio Varela Ayres de Melo<sup>19</sup>

<sup>1</sup>Undergraduate dental student, Federal University of Pernambuco - Recife, Pernambuco, Brazil.

<sup>2</sup>Dental Surgeon; Master degree student in dental clinics, Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>3</sup>Dental Surgeon, Mauricio de Nassau University – Natal, Rio Grande do Norte, Brazil.

<sup>4</sup>Undergraduate dental student, Mauricio de Nassau University – Natal, Rio Grande do Norte, Brazil.

<sup>5</sup>Dental Surgeon, Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>6</sup>General Surgeon, Southern Society Divine Providence Hospital, Rio Grande do Sul, Brazil.

<sup>7</sup>Undergraduate Medical Student, Olinda Medical Faculty, Olinda, Pernambuco, Brazil.

<sup>8</sup>Physiotherapist, Faculty of Communication Technology and Tourism, Olinda, Pernambuco, Brazil.

<sup>9</sup>Physiotherapist, University Mauricio de Nassau, Recife, Pernambuco, Brazil.

<sup>10</sup>Undergraduate dental student, UNIFACEX – Natal, Rio Grande do Norte, Brazil.

<sup>11</sup>Undergraduate Medical Student, FITS – Recife, Pernambuco, Brazil.

<sup>12</sup>Undergraduate Medical Student, Mauricio de Nassau University, Recife, Pernambuco, Brazil.

<sup>13</sup>College Professor of Dentistry Course, Federal University of Pernambuco, Recife, Pernambuco, Brazil. <sup>14</sup>College Professor of Dentistry Course, University National Federico Villarreal, Lima, Peru.

<sup>15</sup>Dental Health of the Army of Peru, Peruvian Army, Lima, Peru.

<sup>16</sup>College Professor of Dentistry Course; Federal University of Campina Grande, Campina Grande, Paraíba, Brazil.

<sup>17</sup>Physiotherapist; Federal University of Pernambuco, Recife, Pernambuco, Brazil.

<sup>18</sup>Physiotherapist at University open of Therapist- Pernambuco, Brazil.

<sup>19</sup>Head of Department of Bucofacial of Dentistry Course; Coordinator of the Specialization Course in Oral Maxillofacial Surgery and Traumatology, Federal University of Pernambuco, Recife, Pernambuco, Brazil

**A**ngioliopoma is a benign tumor clinically similar to a lipoma, but its degree of vascularization is much higher when examined microscopically. It is formed by fatty acids and vascular elements. It mainly occurs in the trunk and extremities and is uncommon in the head and neck area. Neurofibromatosis is a relatively common hereditary condition, having no preference for gender or race. The most common form is type I (NF1), also known as Von Recklinghausen Disease. It is characterized by a mutation on chromosome 17q11.2. Its manifestations are café au lait spots, ephelides and neurofibromas, Lisch nodules and bone dysplasias. The present work aims to report a clinical case of a patient with neurofibromatosis type I, who presented an angioliopoma. Patient, male, 36 years old, melanoderma, sought the Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco, complaining of an increase in volume in the right submandibular region. During the anamnesis, it was observed that the patient had Von Recklinghausen Disease. Clinically, the lesion was well delimited, soft to palpation, mobile and painless. The surgical procedure was chosen under local anesthesia. Initially, a vertical

incision was performed, divulsion of the myocutaneous tissues, resection of the lesion and suture with nylon thread, in separate stitches. The surgical specimen was sent to the Pathological Anatomy Unit of the Hospital das Clínicas at the Federal University of Pernambuco, where the diagnosis of angiolipoma was confirmed. The treatment was presented favorably in relation to the case. In conclusion, it is extremely important that the Dental Surgeon is aware of the characteristic signs and symptoms of NF1 to establish a correct diagnosis, both in patients who already have the disease and in those at risk of developing it.

**Audience Take Away:**

- Definition of Angiolipoma
- Description of a surgical clinical case
- The dental surgeon must know how to identify characteristic signs and symptoms of von Recklinghausen's disease to establish a correct diagnosis

**Biography:**

Dental School student in Federal University of Pernambuco, Brazil, Currently is an intern at Ambulatory of Maxillofacial Surgery and Traumatology Service at the Federal University of Pernambuco, being a member of the project to care for patients with oral diseases and facial traumas and the project entitled prevention and treatment of cancer in face and mouth regions in Venturosa-Pernambuco-Brazil. Also member of the project Use of the Traditional Chinese Medicine in the treatment of patients with temporomandibular disorder.

# Participants List

Abdus Samee Wasim Birmingham Orthopaedic Training Programme, United Kingdom	15
Abdus Samee Wasim Birmingham Orthopaedic Training Programme, United Kingdom	51
Agrawal Srikant National Academy of Medical Sciences, Nepal	41
Ajit Naniksingh Kukreja Marengo CIMS Hospital, India	50
Ali Baker The Western Health, Australia	37
Amr Kassem Mansoura University, Egypt	43
Andreu Martinez Hernandez University General Hospital, Spain	31
Andrew B. Haymet University of Queensland, Spain	38
Andrew Haymet University of Queensland, England	32
Anna Luiza Konig Hunka Faculdade Tiradentes - FITS, Brazil	18
Balamurugan.R RYA COSMO Foundation, India	48
Brandon Lucke Wold University of Florida, Gainesville	16
Christopher M R Satur, University Hospital of North Midlands, United Kingdom	10
Edith Maria Feitosa El-Deir Federal University of Pernambuco - Recife, Brazil	20
Evellyn Maria Silva De Almeida Federal University of Pernambuco - Recife, Brazil	22
Gunjan Bahuguna Grant Medical College, India	46
Gustavo L. Knop Mayo Clinic, United states	45

Harry John Visser SSM DePaul Health Center, United States	<b>14</b>
Julia de Souza Beck Mauricio de Nassau University – Natal, Brazil	<b>28</b>
Konstantina Chrysouli National and Kapodistrian University of Athens, Greece	<b>11</b>
Lohana Maylane Aquino Correia de Lima Federal University of Pernambuco - Recife, Brazil	<b>24</b>
Nikita Marathe MGM College and Hospital, India	<b>47</b>
Orestis Ioannidis Aristotle University of Thessaloniki, Greece	<b>49</b>
Orestis Ioannidis, Aristotle University of Thessaloniki, Greece	<b>7</b>
Pavel Ermolaev Omsk State Medical University, Russian Federation	<b>40</b>
Rayane Pereira de Araujo Federal University of Pernambuco - Recife, Brazil	<b>52</b>
Ricky Rasschaert, Hospital Network Antwerp, Belgium	<b>6</b>
Sagar A. Jawale Jawale Institute of Pediatric Surgery, India	<b>35</b>
Samaddar Avishek University Hospital of North Midlands, United Kingdom	<b>12</b>
Shreya Sengupta Frimley park hospital, United Kingdom	<b>17</b>
Shreya Sengupta Frimley park hospital, United Kingdom	<b>42</b>
Sushanta Paudel Nepalese Army Institute of Health Sciences, Nepal	<b>30</b>
Thayna Lacerda Almeida Federal University of Pernambuco - Recife, Brazil	<b>26</b>
Vanita Ahuja Yale School of Medicine, United States	<b>13</b>

# UPCOMING CONFERENCES

4<sup>th</sup> Edition of Global Conference on  
**Surgery and Anaesthesia**

September 18 -20, 2023 | Valencia, Spain

<https://surgery-conferences.magnusgroup.org/>

## Questions? Contact

+1 (702) 988-2320 or

Inquires: [surgery@magnusconference.com](mailto:surgery@magnusconference.com)

## For Registration:

<https://surgery-conferences.magnusgroup.org/register/register>