

# Workshop October 25, 2017

# Surgery & Ortho 2017









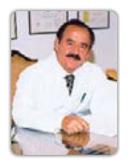


# International Surgery and Ortho Conference

October 25-26, 2017 | Toronto, Canada



October 25-26, 2017 | Toronto, Canada



# Seyed M Rezaian

California Orthopaedic Medical Clinic, USA

A new concept, etiology of idiopathic back pain

Introduction: The back pain is so frequent that appears in every clinic. Spine disorders are the 1 cause of disability in the United States and worldwide. The 2010 Global Burden of Disease (GBD) study recently reported comprehensive information on the worldwide impact of 291 diseases, injuries and risk factors. The degree of disability due to low back and neck pain between 1990 and 2010 increased 24% 29% respectively in United States. (Charles A. Mick, MD 2013). The problem is failing to diagnose the exact cause of back pain. The majority of back pain considered Idiopathic (Michael Palma 1965, Nackemson Al. 1982, Louis G. Jennies, 2005). In recent literature recorded as nonspecific back pain (AAOS and American pain society September 2010). In this paper I report the exact cause of LBP diagnosed, then the correct treatment conducted and the excess stress and economical lost were prevented. My new concept is based on personally taking the history and examining and treating 15665 patients during December 1984 to December 2012.

**Method:** The key is to listen to the patient. Nearly all patients with the first attack of back pain report, that when they lifted some heavy weight or were involved in an accident something popped, snapped, or went out or disrupted in their back. Medical literature is silence to describe what anatomical element was disrupted or failed to produce back pain. Physiologically Inter Spinatus Ligaments in continuation with spinal processes make like a rob in the back of spine. This is similar to string in the industrial crank for lifting. When we bend it resist against force of Compression? This ligament is thin tough non-stretchable. It is made of collagen type I (Similar to collagen in bone). With excess stress it will fail, never heals and dynasty of low back pain will be initiated. As a result, later instability of the 2<sup>nd</sup>

column of spine will be produced. With mismanagement, the damage of the disc will follow the initial back pain in a matter of days, week's moths or even years will produce leg pain and sciatica. At this stage the insurance refused to accept treatment of leg(s) pain and litigation will be initiated. If the condition is not well treated, effectively, let to spinal Stenosis. Furthermore, because disturbance of biomechanics of the spine as a result of initial interspinal ligament injury in the lumbar spine, defense mechanism leads to hyper lordosis lumbar spine, this lead to hyper kyphosis Thoracic spine. Then lordosis of cervical spine in tern cervical disc syndrome will develop. With vague understand the cause of back pain led to blindly ineffective treatment, medico-legal stress and high expense will follow. How one can prove the Inter Spinal Ligament Injury A) History of Injury. B) By inspection a depth could be seen in thin subject. C) By palpation by thumb the examiner may feel the depth and the patient feels severe pain. D) By injection, if the examiner inject 2ml local anesthesia between the two spinal processes with a 22 gage needles all pain will temporary be relieved. E) Objective; in lateral x-rays view on flexion and extension a large gap will be notice between the two spinal processes with ligament injury.

### **Speaker Biography**

S M Rezaian has completed his Orthopaedic Surgery Residency training in London, England, under world-renowned orthopedic authorities. He has been a Member of the Royal College of Physicians and the Royal College of Surgeons in London, England, since 1969. He is an active Member and Fellow of the British Orthopaedic Surgeons. He is a Fellow of the International Society of Orthopaedics and Traumatology (United States Section), a Diplomat and Fellow in Orthopaedic and Spine Surgery of the International College of Surgeons (United States Section), and many other societies. He is licensed to practice in the State of California, Iran and England, UK, where he completed his training and residency in orthopaedic surgery.

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# Scientific Tracks & Abstracts October 25, 2017

# Surgery & Ortho 2017











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# The results of 29 years use of low level laser therapy (LLLT) (890 nm) in the treatment of various oncologic diseases: Clinical and experimental investigations

Mikhaylov Vladimir

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Ve became used LLLT for the treatment of cancer diseases since 1988. The experimental studies were conducted in three areas: Study the effect of different doses LLLT on the growth of experimental tumors. Implanted - Walker's carcinosarcoma n256 (from the USA bank)- (26 rats) and cancer of the mammary gland RMK-1 (75 rats). Spontaneous -mice with cancer of mammary glands type B-(188 animals), Evaluation of the effectiveness of use LLLT in combination with various chemotherapeutic agents (vincristin, 5-Fu, ciclophosphan) -Walker's (31 animals), RMK-1 (63 animals) and the effect LLLT on the accumulation of hematoporphyrine derivatives - Walker's (188 animals). Clinical study; breast cancer: Before surgery - 41 patients (II-IIIst). In postoperative period-38 patients (III-IVst). Only LLLT - 57 patients (IVst) Cancer of esophagus- (LLLT) + external radial therapy under the radical program - 20 patients, only LLLT - 15 patients (T3NoMx). Only LLLT - 63 patients (IVst). Cancer of stomach: LLLT before surgery - 112 patients (IVst). Only LLLT- 173 patients (IVst). Cancer

of colon: LLLT before surgery - 61 patients (IVst). Only LLLT - 24 patients (IVst). Cancer of rectum: LLLT before surgery - 44 patients (IVst). Only LLLT - 17 patients (IVst). Patients with other localizations of tumor (IVst) are 139.

#### Speaker Biography

V A Mikhaylov was born on March 21, 1959 in Uglich, Yaroslavl province, Russia Professional experience: 1976-1982- has finished the Ryazan medical institute named after I.P. Pavlov. 1982-1983- Emergency Hospital Ryazan medical intern's surgical department 1983-1985 - Regional Hospital of Kozmodemyansk, Mari ASSR -surgical oncologist 1985-1989- Regional Cancer Hospital, Ryazan – surgical oncologist 1989-1987 - State Research Center of Laser Medicine, Moscow, Senior Research Fellow, Department of Surgery of the biliary tract and parenchymal organs, 1994 - is nominated as the conducting scientific employer, Department of Surgery of the esophagus and stomach. 1997 – 2000 - Head of Moscow Scientific-Practical Center of laser Medicine. 2000 – 2006 -General Director of Scientific medical laser Center, Moscow. Since 2006 - private practices on family medicine in Moscow. 2013- Physician Contract with Eternity Medicine Institute, Dubai.

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### Adult intussusception: An eight-year institutional review

**Uduma Felix U, Udo Isaac A Abudu** and **Emmanuel K** University of Uyo Teaching Hospital, Nigeria

**Background:** Intussusception is a rare cause of intestinal obstruction in adults. Its diagnosis could be elusive based solely on clinical features because of protean presentations. Supplementary imaging allows for pre-operative diagnosis, early institution of definitive management, and a better clinical course.

**Patients & Methods:** Records of adults managed for intestinal obstruction by laparotomy in a surgical unit of a tertiary health facility were retrospectively examined. The subgroup having an intra-operative diagnosis of intussusception was extracted and analyzed. Data obtained included age, sex, and primary symptoms at presentation. Presence of intestinal perforation, the histology of the lead point of resected tissues and the final disposition of the patients were documented.

**Results:** Four hundred and three patients underwent surgical management of intestinal obstruction. Eight patients (2%) had an intra-operative diagnosis of intussusceptions at laparotomy, four males and four females. (male:female ratio 1:1). Abdominal pain was the presentation in 7(87.5%) and anal protrusion in

1(12.5%). Four patients (50%) had bowel perforation with peritonitis. Seven of the resected intestine had lead points which were benign. Two patients (25%) died from sepsis. Resection and anastomosis were done for all the patients.

**Conclusion:** Intussusception in adults is uncommon but carries a high morbidity and mortality which can be reduced with a good clinical assessment, appropriate imaging and early laparotomy.

#### **Speaker Biography**

Uduma Felix U is a Senior Lecturer in the Department of Radiology, Faculty of Clinical Sciences, College of Health Sciences at University of Uyo, Uyo, Nigeria. He is Head of Department/Consultant Radiologist in Department of Radiology at University of Uyo Teaching Hospital, Uyo, Nigeria. He is also a Member of Medical Advisory Board at University of Uyo Teaching Hospital, Uyo, Nigeria and Associate Editor of many journals including West African Journal of Radiology and Financial Secretary of Association of Radiologists' of West Africa (ARAWA). He was Head of Department of Radiology in Faculty of Clinical Sciences, College of Health Sciences at University of Uyo, Nigeria and Consultant Radiologist at Abia State University Teaching Hospital, Aba, Nigeria. He was Adjunct Lecturer in Madonna University, Elele, Nigeria & Consultant Radiologist, Polyclinic Bonanjo, Douala, Cameroon. He has published more than 30 articles.

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# Insertion of cochlear implant electrodes through round window membranes: Its accessibility in pediatric population

**Montasir Junaid** 

Armed Forces Hospital Southern Region, Saudi Arabia

**Introduction:** For infants and children with severe to profound hearing impairment, cochlear implantation is the widely accepted surgery of choice. There has been a recent shift of electrode array insertion from bony cochleostomy to round window membrane (RWM) insertion. Round window membrane is strategically placed which could be accessed after an optimal post tympanotomy. St. Thomas hospital (STH) classification is used to evaluate the accessibility of RWM insertion of electrode array and can be classified as Types I, Ila, Ilb and III. In type I RWM is 100% visible and insertion is straight forward while in type III RWM is not visualized at all and a bony cochleostomy is under taken.

**Material & Methods:** A total of 190 pts were included with minimum age of 1.5 years and maximum of 4.1 with mean of 2.76, There were 48.2% males and 50.3% females in the group. Children with diagnosed syndromes or age more than 4.5 were not included in study.

**Results:** The cause of hearing loss in majority of cases was unknown (53.7%) followed by low birth weight (14.7%), maternal infections (12.6%), meningitis (6.3%), birth asphyxia and jaundice (5.3%) and non-inherited congenital (2.1%) All the type III pts underwent bony cochleostomies (2.1%) while simple round window insertions were 65.3% (32.2% in Type I, 54.8% in type II a and 12.9% in Type II b) and 32.6% underwent extended round window insertion. (33.8% in type II a and 66.1% in Type II b)

**Conclusion:** STH classification is an easy way to assess the accessibility of RWM insertion in patients planned for cochlear implantation provided that a proper posterior tympanotomy has been undertaken.

#### Speaker Biography

Montasir Junaid is an ENT Specialist with special interest in Otology and Head and Neck Surgery. He has worked as Assistant Professor in Pakistan and currently is a visiting faculty in Armed Forces Hospital southern region, Saudi Arabia. He has more than 25 publications and two books published as Author and Co-Author. He is also an Active Member of Pakistan Cochlear Implant Program, where cochlear implants are being done free of charge on financially challenged pediatric patients with complete hearing loss.

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### Assessment of quality of life after functional endoscopic sinus surgery in patients with chronic rhinosinusitis

Sadaf Qadeer

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**Introduction:** Chronic Rhinosinusitis (CRS) is a group of disorders characterized by the inflammation of mucosa of the nasal passages and paranasal sinuses. It includes chronic rhinosinusitis with polyps, CRS without polyps and allergic fungal sinusitis (AFS). This debilitating disease causes negative impact on quality of life (QOL) of patients. Functional endoscopic sinus surgery (FESS) is the mainstay of surgical treatment for patients and improves QOL of patients. This subjective assessment of QOL can be measured by disease specific questionnaires. SNOT-22 questionnaire is widely used and validated questionnaire for this purpose.

**Objective:** The objective of this study is to compare the quality of life after functional endoscopic sinus surgery in patients with subtypes of chronic rhinosinusitis.

**Material & Methods:** Prospective study was done on 54 patients. Data was collected using SNOT-22 questionnaire and filled in pre-operative period then in post-operative follow-up visits on 1st, 3rd, 6th and 12th months. Paired sample t-test was used to compare pre-operative and post-operative SNOT scores

and multivariate generalized linear model was used to estimate regression parameters for SNOT scores in CRS with polyp and AFS in comparison of CRS without polyps.

**Results:** Out of 54 patients, 59.3% were males, mean age was 35.98, 29.6% were in CRS without polyp group, 44.4% and 25.9% were in CRS with polyps and AFS group. Recurrence occurred in 7.4%, revision surgery required in 3.7% while 22.2% had history of asthma. Paired sample t-test showed statistical significant reduction in post-operative SNOT scores. Linear model results showed SNOT scores in CRS with polyp group was significantly reduced.

**Conclusion:** FESS provides significant improvement in QOL of patients in chronic rhinosinusitis.

#### **Speaker Biography**

Sadaf Qadeer is an ENT specialist with special interest in Rhinology. She is apt in Endoscopic Surgery with emphasis on immunology and allergy. This study is first of its kind in Pakistani population. This study sheds light on the main subtypes of chronic rhinosinusitis and post-operative quality of life after FESS in such patients.

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### Is advertising on Google beneficial in searching for patient information on skin cancer?

Weiguang Ho, Christopher David Jones and Hilal Bahia Ulster Hospital, UK

**Aims:** Advertising is a major source of revenue for popular search engines such as Google. Skin cancer is the commonest form of cancer and can cause anxieties amongst patients in whom it is suspected or diagnosed. We investigated whether advertising found on Google during the search for patient information on skin cancer was beneficial to patients.

**Methods:** The term 'skin cancer' was searched using Google Chrome, in 'Incognito' mode, with the cookies preset turned off. Advertisements from the first ten pages of results were included, without exclusion for analysis. We analyzed the country of origin, type of organization and what information could be gathered about skin cancer within the first 5 links. The websites were then analyzed for their easy of gathering basic information on skin cancer – types, prevention, symptoms, diagnosis, staging, treatment – and whether evidence was cited. Individual website traffic was gathered using SimilarWeb and analyzed.

**Results:** A total of 35 advertisements from 16 unique websites were found in the first ten pages visited. The most frequently advertised website was Macmillan (8 times). Nine websites were of charities or non-profit organizations, 4 from other search engines and 2 from media. The majority of the websites

were UK-based, while the remaining was from the United States of America, Republic of Ireland and Canada. Basic information on skin cancer was not available in majority of the websites behind these advertisements. 18.8% (n=3) of the websites were unrelated to skin cancer and 6.3% (n=1) led to webpage that was not found (Error 404). In November 2016, the traffic from internet users from the UK on advertised websites was an average of 901990 visits each, and this represented 7.8% of the total global traffic. An average of 2.8% of these visits was found to be from users clicking on advertisement.

**Conclusions:** We found that the majority of websites were unable to provide sufficient information to patients regarding skin cancer. This brings into question the benefits to the patient of advertising by search engines. Advertising on Google results in a significant number of visitors from the UK. It is therefore important that accurate information is displayed on these websites.

#### **Speaker Biography**

Weiguang Ho is currently working in the Department of Plastic Surgery at Ulster Hospital, Belfast United Kingdom.

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### Robotic surgery and patient positioning: Ergonomics, clinical pearls and review of literature

Shagun Bhatia Shah

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Statement of the problem: Robotic surgery has revolutionised patient management and opened newer doors for the anaesthesiologists regarding patient safety. Patient positioning and operation theatre (OT) configuration assumes unique importance for robotic surgery due to multiple factors. First and fore-most, the position cannot be changed once the robot is docked. Further, adequate surgical exposure requires extreme positioning and revamping of the existing positioning devices. In addition, there is restricted access to the patient and its antecedent problems. Last, but not the least, space restriction and protection of patient from the clashing robotic arms requires special devices and several unfavourable position modifications. Position related nerve palsies, pressure ulcers, port site necrosis, venous thrombosis and other injuries are on the rise in the recent years and appropriate measures may make it largely preventable.

**Methodology:** Our experience of providing perioperative and anaesthetic care for more than 2500 robotic surgeries (various surgical disciplines) has helped us highlight the major positioning

associated deficiencies and problems during robotic surgeries. We have also attempted to find practical solutions for the same, and to define the best practices for robotic positioning using a thorough review of literature.

#### **Speaker Biography**

Shagun Bhatia Shah is a motivated and dedicated Anesthesiologist with 16 years of experience in the field of Anesthesia. Her interest in Onco-anesthesia drove her to practice as a Consultant at RGCI and RC. She is especially interested in recent advances in anaesthesia like USG guided lines, nerve blocks, epidurals and anaesthesia for robotic surgery. She is certified in TEE (trans esophageal echocardiography) use and utilizes it for managing cardiac patients undergoing noncardiac Onco-anesthesia. She has successfully conducted clinical trials like "Optic nerve sheath diameter guided noninvasive ICP measurement in patients undergoing robotic surgery in steep Trendelenberg position" and is presently conducting the trial "TEE for intraoperative goal directed fluid therapy in cardiac patients undergoing non-cardiac Onco-anesthesia and robotic surgery in ST position" among others. She is ready to walk that extra mile with post- operative and terminally ill cancer patients to alleviate their pain and suffering.

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### The matching rate effects blood loss in PFNA II treating femoral intertrochanteric fracture

Renjie Xu

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**Objective:** The objective of this study is to investigate the effect of the ratios of marrow cavity diameter and intramedullary nail diameter from different layers on hidden blood loss, overt blood loss and total blood loss in the perioperative period during using PFNA II for femoral intertrochanteric fracture.

**Methods:** We retrospectively studied 70 patients treated in our hospital from January 2015 to November 2016. Their age, gender, height, fracture type, preoperative and postoperative HTC, and overt blood loss during operation were analyzed. Total blood loss and hidden blood loss were calculated using CROSS equation. According to post-operative X-ray results, the ratios of marrow cavity diameter and intramedullary nail diameter from different layers, start of funnel, end of funnel and femoral isthmus, were measured, the mean of the ratio from frontal and lateral X-ray were designated as R. We classified the data into a high matching group (R is less than the median) and a low matching group (R is greater than or equal to the median) within each layer, and compared total blood loss, hidden blood loss and overt blood loss between the two groups. Hidden

blood loss, as dependent variable, and age, fracture type and R, as independent variables were analyzed by using multiple linear regression.

**Results:** The hidden blood loss and total blood loss in the high matching group were significantly less than that in the low matching group on three layers (P<0.05), however, there was no significant difference of overt blood loss. Only R values from start of funnel and end of funnel were correlated to hidden blood loss (P<0.05).

**Conclusion:** The higher matching rate of PFNA II at the funnel is the less hidden blood loss and total blood loss will be.

### **Speaker Biography**

Renjie Xu is an Associate Chief Physician in Orthopaedic Department of Suzhou Municipal Hospital. He graduated with a Medical Doctor Degree from Peking University in 2009. After graduation, he worked in Suzhou Municipal Hospital, major in Trauma of Bone and Joint.

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### Surgical correction of severe kyphotic deformity in spinal tuberculosis

Justin Arockiaraj

Christian Medical College and Hospital, India

**Aim:** The aim of this study is to evaluate the clinical and radiological outcome of surgical management of 24 patients with severe Tubercular kyphosis (>60 degrees).

Materials & Methods: From 2000 - 2015, 24 patients were surgically treated for tuberculous kyphosis. The average age was 23 years (range 8 – 46 years). The mean kyphosis angle was 70° (60° - 97.7°). Mean vertebral loss was 2.6. Nine patients had significant neurological deficit (Frankel A, B, C). Eleven patients had active disease. A single approach was used in 19 patients and the remaining had staged surgery. Pedicle screws were used in 18 patients and Hartshill rectangle in 6 patients. The anterior column was reconstructed with autologous bone in 9 patients and titanium cage in 15 patients. The average follows up of the patients was 3 years (1-12years). Clinical outcome was based on Macnab's criteria.

**Results:** The average correction of kyphosis was 32°. The loss of correction at final follow up was 8°. All patients had healing of disease. Significant neural recovery was seen in 10 (83%) patients 3 patients had neurological deterioration, of which 2 improved and one patient did not have any recovery in neurology. Graft slippage, graft fracture and implant failure and superficial wound infection was seen in one patient each. The

implant was removed in 2 patients. There was no mortality.

**Discussion:** Inspite of adequate chemotherapy patients with tubercular kyphosis may demonstrate worsening deformity resulting in late onset paraplegia and grotesque deformities. This is best avoided by correcting severe deformity in active, healing or healed stages of spinal tuberculosis.

**Conclusion:** Surgical correction of severe tubercular kyphotic deformities involves anterior debridement/release and reconstruction with posterior column shortening and posterior instrumentation with fusion. Though hazardous and technically demanding it yields clinically and radiologically gratifying results.

#### **Speaker Biography**

Justin Arockiaraj have completed his undergraduate (MBBS) and post graduate training (D. Ortho., M.S. Ortho., DNB Orthopaedics) in the field of Orthopaedics, at the Christian Medical College and Hospital, Vellore, India. He is currently working as an Associate Professor in the Spinal Disorder Surgery unit, Department of Orthopaedics. He is interested in academics and teaching. He is also a resource person for Distance Education Program and Post graduate Diploma in Family Medicine. He regularly take classes for under graduate students, post graduate students and spine fellows. Tuberculosis is one among his favorite topics. He has couple of publications both in national and international journals.

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### Robotics in the outpatient endoscopic spine surgery arena

**Anthony Yeung** 

Desert Institute for Spine Care, USA

he role of robotics is becoming more prominent as surgical procedure and in the spine it has become more complex. Accuracy of hardware placement is becoming more important even for experienced surgeons. Robotics is playing a greater role for not only improving results, but for patient safety. It has the added benefit of minimizing radiation, improving the accuracy of placement of endoscopic trajectories, and allowing for safer application of minimally invasive surgical approaches. It is well recognized that intra-operative and immediate postoperative imaging is helpful in MIS spine surgery, especially for percutaneous screw placement and guidance for tubes and implants. Radiation Safety is also enhanced due to the adoption of image guidance and dependence on floroscopy for needle and cannula placement. While known traditional fusion procedures such as minimally invasive placement of surgical hardware such as pedicle screw placement, implantation of stabilization devices that already can be accomplished under open and fluoroscopic guidance, the development of robotics to better standardize cannula and endoscopic placement for endoscopic surgery will also have great impact on the development and standardization of the various approaches by different key opinion leaders. Yeung's inside-out philosophy and Technique with Endoscopic trajectories aided by Artificial

Intelligence programmed into the Robot will be featured here to Illustrate cannula placement for the various target points for endoscopic decompression. Industry developments helping endoscopic procedures: Intra-operative CT scans from a rapid portable CT scanner (O-arm, Airo) is aided by a robotic arm providing image guidance through navigation which will shorten the learning curve for novice and less experienced surgeons. It will also help decrease radiation exposure. It can help with instrument placement for surgical trajectories. The Orion Surgical suite brings all the components together. To conclude, Robotic techniques are evolving rapidly, and offer significant advantages to surgeons by precise reproducible cannula placement in minimally invasive approaches.

### **Speaker Biography**

Anthony T Yeung specializes in diagnosing and treating the patho-anatomy of back pain and sciatica from painful degenerative conditions of the lumbar spine, particularly discogenic pain from toxic annular tears, disc herniations, lumbar spondylosis and foraminal stenosis. His Endoscopic procedures are over 10,000 since 1991 are effective in relieving both back and leg pain, by visualizing, decompressing, and ablating the pain generator with an endoscope. He is the developer of the Yeung Endoscopic Spine System, and has interest in developing a robotic and image guidance system to facilitate his technique for spine surgeons in training.

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### Ensuring the safety of allograft tissues (Iranian Tissue Bank & Research Center experience)

Mitra Mahdavi-Mazdeh

Tehran University of Medical Sciences, Iran

le witness over 2 million human tissue transplantation annually worldwide. These tissues are used in different surgeries from lifesaving orthopedic or early excision grafts for severe burns to reconstructive or ophthalmologic ones. These are shared between countries with different protocols and regulatory systems to look for different viral or microbial agents which may be a real concern for infection transmission. It seems necessary to have not only a national legislative framework with mandatory requirements and a regulatory system to authorize cell &tissue establishments but also a reporting system for allograft-associated complications by clinicians to prevent errors or donation from the same donor or same batch. (1, 2) The US Navy Tissue Bank, launched in 1949, was the first standard setter for the world community of tissue banks and established many of the standards that are still followed. Processing, immunological principles of tissue transplantation and sterilization by irradiation were developed in half a century by Navy scientists. (3) There are reports of transmission of infections or malignancies to recipients of not only solid organs but tissues and eye grafts. (2, 4) Infectious pathogens can include viruses, bacteria, parasites and prions. The risk may amplify due to the high number of tissues which can be recovered from a single donor. However, the overall risk of infectious disease transmission in tissue and cell recipients thanks to more than 50 years of experience in the field is much less than solid organ recipients which is less than 1%. (1) Furthermore, bone banking procedures have improved significantly during the last three decades. The balance between safety and availability and cost has long been a concern but cannot be an excuse to

jeopardize the patient to the risk of disease transmission. We need to follow strict evidence- based algorithm to prevent even the very limited risk and allograft safety is dependent seriously on effective sterilization. In a retrospective review of allograft recall data from January 1994 to June 30, 2007 it was found that 59,476 (96.5%) of recalled allograft tissues by FDA were musculoskeletal. However, interestingly the percentage of different errors has been changed through years. From 1994to 1998, insufficient or improper donor evaluation plus positive serology accounted for 96.4% of musculoskeletal recalls which decreased to 67.2% in the period of 1999 to 2007.(5) So the importance of retrieval phase is evident. Any biologicbased products is expected to carry such a risk due to intrinsic characteristics. It should be claimed that the risk of transmission can be eliminated. All the efforts are taking place to achieve the lowest possible risk of disease transmission. There are three stages from donor tissue retrieval, tissue processing in clean room and sterilization before storage and packaging to provide safe tissues appropriate for patient transplantation. Each needs supervision of quality control and assurance protocols.

#### Speaker Biography

Mitra Mahdavi-Mazdeh is working as a Professor in the Division of Nephrology at Tehran University of Medical Sciences. She was the Director of Management Center of Transplantation and Special Diseases in Moh for two years (2005-2007). She has been the Director of Iranian Tissue Bank Research Center since 2007. Her major research interests lie in the epidemiologic features of RRT especially transplantation in developing countries.

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# IceBand® knee brace towards rapid rehabilitation in post-operative total knee replacements: A prospective trial

Mansoor Jafri, Aftab Ahmad and Perrico Nunag Dr. Gray's Hospital, Scotland

ceBand® is a disposable cooling compression brace made of protective non-woven fabrics. It is available as a pair and uses pure water and phase changing element technology providing long lasting cooling effects to swollen and warm postoperative knees. This is safe, simple, and efficient way to faster rehabilitation and postoperative pain relief. The trial was compared against previously used Cryo-Cuffs which were bulky, cools off quickly and required attachment to a water cooler, involving staff help. It required re-chilling after first half hour and last for twenty minutes only. Cleaning is required before using for another subject to avoid risk of infection transmission. In contrast, IceBand® provided cooling phase lasting more than sixty minutes, and reusable up to thirty times after repeated cooling of spare brace in freezer. It hardly required any staff involvement and the subjects were mobile independently as there was no attachment to the water cooler. Twelve random

patients participated in the trial. Each used both methods for half a day. Questionnaires were handed to patients asking parameters of user friendly, security, interference with mobility, pain relief, preference of method and complications if any. Each parameter was given a score and average calculated. All patients opted for IceBand®, as it is comfortable for mobility, lighter, simple application, user friendly, longer lasting and re-useable spare available to take home, and disposed as household waste. Pain relief scored is 8.5 for IceBand® vs 5.25 for cryo-cuff. Mobility score 8.58 vs six application ease 9.5 vs. 5.75 and overall score of 38.33 vs. 23.

#### **Speaker Biography**

Mansoor Jafri is an Orthopedic Surgeon working at Dr. Gray's Hospital, Scotland.

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# The Plon - Arnold modified Wilson osteotomy- a minimally invasive osteotomy for the treatment of hallux valgus

**Sheldon Nadal** Sheldon H Nadal Clinic, Canada

The Plon -Arnold modified Wilson osteotomy is a minimally invasive V-shaped osteotomy at the first metatarsal neck made in the sagittal plane with the apex of the V pointed proximally. The head of the first metatarsal is then displaced laterally to reduce the intermetatarsal angle and the bunion deformity. Specialized instrumentation allows the surgeon to perform the procedure through very small incisions which results in less soft tissue trauma. Consequently, most patients will experience less postoperative pain and swelling, will not require narcotic analgesia, will have a more cosmetically appealing result, and get back to normal activities quicker than with traditional surgery. The history of the procedure,

indications, instrumentation, technique and postoperative care will be discussed and illustrated with pre-and post-operative radiographs and photographs.

#### **Speaker Biography**

Sheldon Nadal is a registered Podiatrist. He completed his Honours Bachelor of Science at University of Toronto, 1975. He is a graduate from the Ohio College of Podiatric Medicine in 1979 and Foot Surgery Residency at Broad Street Hospital and Medical Center, Philadelphia Pennsylvania, July 1980. He is the Past President of The Academy of Foot and Ankle Surgery, Spokane Washington. He had his own Private Practice at 586 Eglinton Ave. E. Suite 501, Toronto Ontario, Canada from 1980 to present. He is the Associate Professor of The Academy of Ambulatory Foot and Ankle Surgery.

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# Video Presentations October 25, 2017

# Surgery & Ortho 2017











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### Selective intra-arterial embolization in benign liver tumors

**Ferrer-Puchol** and **C La Parra-Casado** Hospital de la Ribera, Spain

**Introduction:** Benign liver tumors occur frequently and often encountered incidentally. In most cases, they are accurately diagnosed by non-invasive radiologic imaging techniques. Most are asymptomatic, but some cause hepatomegaly, right upper quadrant discomfort, or intraperitoneal hemorrhage. Treatment is necessary only in a few specific circumstances.

**Aim:** The aim of this work is to present cases of symptomatic benign liver tumors diagnosed and treated with intra-arterial embolization before surgery.

Material & Methods: We present the cases of seven patients diagnosed with symptomatic benign liver tumors that required treatment: one focal nodular hyperplasia, two giant cavernous hemangiomas, one hepatic adenomatosis, and three hepatic adenomas. Once the feeding arteries were identified, tumors were embolized with polyvinyl alcohol particles (500  $\mu m$  - 700  $\mu m$ ) and then the feeding artery was plugged with coils if there was an arterial pedicle to ensure the total vascular exclusion of the tumor. The surgical intervention took place four to seven days after embolization.

**Results:** All seven patients were women (age range, 23-74 years); presurgical intra-arterial embolization was done in six. In one patient with adenomatosis, embolization was done to control intraparenchymal hepatic hemorrhage. In the six patients who underwent surgery, the tumor was completely excised and no intraoperative bleeding events or postoperative complications occurred.

**Conclusions:** Provided there is a consensus among the multidisciplinary team, embolization is a useful option in the perioperative management of giant and/or symptomatic benign liver tumors.

#### Speaker Biography

Ferrer-Puchol is a Medical Doctor specialized in Interventional Radiology. She is from Valencia (Spain) and she is working at University Hospital in the Radiology Department. She has her expertise in intra-arterial embolization procedures and in intra-arterial treatments in Oncology field. She belongs to the Liver Tumors Committee for consensual decision making. In the teaching field, she is Tutor to the Radiology Residents conducting their research work. She has directed Doctoral theses and has published numerous scientific articles in the field of Interventional Radiology.

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October 25-26, 2017 | Toronto, Canada

## Evaluation of right ventricular dysfunction post on-pump vs off-pump coronary artery bypass grafting by echo, is there a difference?

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**Background:** The right ventricle (RV) may be selectively impaired following coronary artery bypass graft (CABG).

**Methods:** We tested this hypothesis by prospective study. We examined two groups of patients. Group A (30) patients had offpump CABG and group B (30) patients had on-pump CABG. All patients were subjected to pre-operative, early post-operative and six months follow up, full clinical and ECHO-Doppler studies. All patients had preoperative diagnostic coronary angiography (CA).

Results: There was insignificant difference comparing the clinical picture of right side heart failure (RSHF) in both groups. Pre-operative characteristics and RV function by ECHO did not differ significantly between the two groups (mean±SD): tricuspid annular plane systolic excursion (TAPSE) was 1.83±0.7 cm, 1.47±0.51 cm and 1.87±0.34 cm in pre-operative, early post-operative and six months follow up respectively in group A (off-pump patients), while in group B (on-pump patients) was 1.99±0.65 cm, 1.63±0.49 cm and 1.97±0.41 cm in preoperative, early post-operative and six months follow up respectively. The tricuspid annulus pulsed wave tissue Doppler (TDTA) was 11.98±3.0 cm/sec, 9.77±1.73 cm/sec and 11.9±1.72 cm/sec in pre-operative, early post-operative and six months follow up in group A, while in group B it was 12.83±3.0 cm/sec, 10.77±2.12 cm/sec and 12.27±1.68 cm/sec. The parameters of RV function including PASP, RV dimension; TAPSE and TDTA were significantly impaired early post-operative in both groups and completely improved after six months.

**Conclusion:** The RV function significantly impaired early postoperative in both modalities of CABG irrespective of the surgical technique and completely improved to normal after six months. Both surgical techniques produced equivalent results on the RV function with or without significant disease of RCA.

#### **Speaker Biography**

Maha Hassan is working as a Cardiology Specialist at Helwan University. She has done her Master's degree and MD at Kasr El-Aini Medical School-Cairo University (Egypt). She received clinical training in the Cardiology Department since 2007. She has been working as an echo operator since 2010 and Vascular Doppler Operator since 2013 at ASSalam International Hospital-Maadi and private centers. She has participated in the conference of the European Society of Cardiology (ESC 2014) in Spain as Speaker (poster presentation). Her resume also includes participation at Cardioegypt Conferences as a Speaker (oral presentation) in 2014, 2015 and 2017. She has participated in Cardioalex Conferences by oral presentation in 2014 and 2017.

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October 25-26, 2017 | Toronto, Canada

### Improving outcomes with data: Developing an orthopedic trauma registry in Pakistan

**Tashfeen Ahmad** and **Zehra Abdul Muhammad** Aga Khan University, Pakistan

Objective: The objective of this study was to establish an orthopedic trauma registry at Aga Khan University as a model system of objective, reliable assessment of injuries, recording of management and analysis of outcomes.

**Methods:** Consensus was developed among all orthopedic surgeons about the need for an orthopedic trauma registry. Internationally validated injury-specific scoring scales enabling objective assessment of functional, clinical and radiological outcomes were selected. The study was approved by the Departmental Research Committee and Institutional Ethical Review Committee. After obtaining informed consent from eligible patients, data was collected from the patient's medical records. Injury-specific outcomes were assessed at multiple time points and reports were generated about injuries, hospital care provided, and outcome.

**Results:** Over a 19-month period, 350 patients were enrolled. There were 123 patients with upper limb injuries, 200 with lower limb injuries and 27 with poly trauma involving both upper and lower limbs. Road traffic accidents, falls and firearm injuries accounted for the top three commonest causes of orthopedic trauma. Outcome assessment was completed in about one half, a third had stopped following up, while is ongoing in the remaining patients.

**Conclusion:** Robust methods of trauma data capture and analysis are fundamental requirements for improvement in management outcomes in patients with orthopedic trauma. Through the registry data, a system of outcome monitoring and peer-review to enable early identification of complications and need for re-intervention can be developed. Registry data also permits comparison of outcomes with international benchmarks. We plan to expand the scope of the registry within the city, and across the country for a uniform, comprehensive system of data capturing, management and analysis, enabling evidence-based decisions. Six-monthly and annual reviews will enable exploration of possible areas for improvement in the infrastructure and process, thus improving the quality of orthopedic trauma care, and outcomes.

#### Speaker Biography

Zehra Abdul Muhammad has completed her Master's in Medical and Pharmaceutical Research from Vrije University of Brussels and conducted her basic research in the field of Molecular Biology. She has been involved with multidisciplinary research areas and has seven years of experience working in clinical research setting. Currently, she is working as a Research Associate at Aga Khan University Hospital, Karachi, Pakistan and is committed to assist in providing highest quality of care to trauma victims and promote her city a center of excellence for trauma care and trauma research.

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October 25-26, 2017 | Toronto, Canada

#### The role of foot orthoses and flexible flatfoot

Sarah A Curran

Cardiff School of Sport & Health Sciences- Cardiff Metropolitan University, UK

**Statement of the Problem:** Flexible flatfoot is reported to affect up to 23% of the adult population and is a condition treated by many health professionals with an interest in the foot and ankle. Flexible flatfoot is characterised by a reduction in the height of the medial longitudinal arch along with eversion of the rearfoot. From a functional perspective, a flexible flatfoot does not provide support and stability of the foot during the propulsive phase of stance. Failing to achieve dynamic stabilisation compromises the counteraction and influence of ground reaction forces as well as the adaption to the supporting surface.

Methodology & Theoretical Orientation: Pain and symptoms proximally to the foot, an awareness of a flexible flatfoot and reports of fatigue are the typical triggers for patients to seek advice from a health professional. Whilst non-responsive and extreme cases can be treated surgically, flexible flatfoot is typically managed conservatively, with much of the literature focused on prevention. Foot orthoses – which can range from a simple device, to a mild contoured device and a fully bespoke manufactured CAD-CAM device, are commonly used in flexible flatfoot. Although the mechanism of action of foot orthoses is continuously debated by many, it is suggested that they act to

control kinematic foot function and reduce plantar pressures. However, in contrast, the therapeutic value of foot orthoses for flexible flatfoot are not well explored, and there is a need to direct studies that explore patient centred outcomes with focus on fatigue and pain.

Conclusion & Significance: Although the complexity of foot and lower limb function is acknowledged, and whilst foot orthoses for flexible flatfoot may be functionally beneficial, there is a need to focus on the therapeutic response.

### Speaker Biography

Sarah A Curran is a Reader and Principal Lecturer at the Wales Centre for Podiatric Studies, Cardiff School of Sport and Health Sciences, Cardiff Metropolitan University. She teaches at Undergraduate and Post-graduate level on various disciplines. She has held a number of editorships, published widely and presented at national and international conferences. She holds a number of fellowships and was awarded a prestigious National Teaching Fellowship from the Higher Education Academy in 2016. Her research and enterprise activities are symbiotic to the creation of practice protocols that have relevance to clinical teaching. She has a particular interest in foot function, patellofemoral joint pain, limb dominance and post-operative outcomes of foot surgery and foot orthoses intervention. She works collaboratively locally and worldwide with various health professionals and disciplines in Brazil, Iran, Ireland and the USA.

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# Workshop October 26, 2017

# Surgery & Ortho 2017











# International Surgery and Ortho Conference

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October 25-26, 2017 | Toronto, Canada



# Seyed M Rezaian

California Orthopaedic Medical Clinic, USA

### A new technique of discectomy based on pathophysiology of disc

oseph Barr Professor of Harvard University in 1967, in a Jcritical speech in San Diego said, "We must find another technique than laminectomy to avoid post-operative iatrogenic complications. The research for that goal has been continued since all over the world. The recent literature confirms that the sino-vertebral nerve, a tiny branch of a sensory, radicular nerve, after exiting inter-vertebral forename, in lumbar spine, turn back and re-enter into the spinal canal, innervates only one third of the posterior part of the disc and posterior longitudinal ligament. To observe this anatomical fact, we think the pain from herniated disc could be successfully treated by abolition of small part of disc without disturbing the stability of spine. The senior author has designed, a new technique called Universal Endoscopic Discectomy (UED), accordingly, just a small part of posterior part of disc under local anesthesia is removed or with the laser evaporate; like one surgery for treatment of all herniated discs, at any level and any ages as outpatient procedure. After complete evaluation of the patient, a dynamic disco gram is taken to pinpoint the site of problem. Then under fluoroscopic control and local anesthetist, 10 ml normal Salinas with epinephrine from poster-lateral was injected into the foremen (in lumbar spine and between carotid sheet and trachea-esophageal, in cervical spine). In this way, we created a column of water for safe passage of the guide wire dilating tubs, microscope and perpetuity forceps and laser beam. We removed protruded disc manually by pituitary forceps in younger and evaporated with Holmium laser in elderly. Since 1984 -2014, we have operated 1050 patients, ages range from 13-96 years.

1 to 20 years of follow up revealed that 92% were good or excellent, 2% poor, 5% fair, 3% lost in follow up complication, permanent nuro-vascular injury nail. Infection one drop foot in one temporary para paresis in 23, others nail. It is time that, we consider minimal invasive surgery as treatment for herniated disc under local anesthesia as outpatient procedure (acute or chronic).

#### **Speaker Biography**

S M Rezaian is the Medical Director of the California Orthopedic Medical Clinic, Inc. He has completed his Orthopedic Surgery Residency training in London, England, under world-renowned orthopedic authorities. He has been a Member of the Royal College of Physicians and the Royal College of Surgeons in London, England, since 1969. He is an Active Member and Fellow of the British Orthopedic Surgeons. He is a Fellow of the International Society of Orthopedics and Traumatology (United States Section), a Diplomat and Fellow in Orthopedic and Spine Surgery of the International College of Surgeons (United States Section), and many other societies. He is licensed to practice in the State of California, Iran, and England, UK, where he completed his training and residency in Orthopedic Surgery. He is Board Certified by the American Academy of Neurological and Orthopedic Surgeons, 1984, Board Certified in Spine Surgery by the American Board of Spine Surgery, 1987. His clinical specialties include: orthopedic and spine surgery, management of back pain and back injury, treatment of failed back surgery and correcting complex musculoskeletal inquiries. He is a Former University Professor of Orthopedic Surgery with over 20 years' experience in the practice of orthopedic medicine and surgery. He has over 100 published papers in the scientific literature, and he has made over 200 presentations of scientific papers at both the national and international level. He is an active member of more than 20 scientific societies, which includes the North American Spine Society, California Orthopaedic Association, Los Angeles Medical Association, California Medical Society, American Medical Association, American Back Society, and fellow of the International Society of Traumatic and Orthopedic Surgery. He has been Chairman of over 20 national and international scientific meetings. He is an Associate Professor of Orthopedic Surgery at the Western University of Health Sciences.

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# Scientific Tracks & Abstracts October 26, 2017

# Surgery & Ortho 2017











# International Surgery and Ortho Conference

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### New approach in managing pelvic gunshot injuries

Yaser Said Abdelrhman Selim

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**Background:** Penetrating pelvic injury (PPI) is one of the most difficult injuries to trauma surgeons; patients who have this condition have high-risk of visceral injury (rectum, bladder and distal ureters).

**Case Study:** We present one patient with gunshot injury to the pelvis who presented to ER with severe shock and a history of gunshot in battle field, there was an inlet wound in the left gluteal region. Immediate laparotomy was done together with fluid resuscitation. In the theatre, there was a clear plan to ligate both internal iliac arteries before exploration of pelvic hematoma.

**Results:** Patient showed immediate improvement of vital signs and bilateral ligation of internal iliac arteries enables full exploration of the pelvic hematoma and ligation of bleeding vessels.

**Conclusion:** Although gunshot injuries are considered to be one of the most difficult injuries for trauma surgeon to manage, definite plan with vascular control before exploration of pelvic hematoma can be rapid simple method to save lots of patient's lives.

#### Speaker Biography

Yasser S, MD, MRCS, graduated in the Faculty of Medicine, Tanta University, Egypt in 1992. He trained in the Department of General Surgery in Tanta University Hospital, where he got his Master's degree in General Surgery in 1997. He started his MD research in Menofyia University in 2000; he had been awarded Doctorate degree in Surgery in 2004. He started to work in Teaching Hospital Institution in Egypt as Lecturer and Professor of General Surgery. In 2007, he started working in Saudi Arabia as a Consultant of General Surgery where he was responsible for treating trauma patients. He trained in Mainz, Germany in 2010 in the field of Laparoscopic Surgery; in 2014, he became a member of Royal College of Surgeons of England.

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October 25-26, 2017 | Toronto, Canada

# Newly discovered way of the function of cardio-vascular system and the latest theory of the development of cardio-vascular diseases

Mikhaylov Vladimir

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The main role in transportation of blood to the capillary bed is played by the artery, the power of the heart is only 0.49 - 0.027 % of the power needed to transport blood to the capillary bed. The vascular pump is regulated by the frequency of contractions of the heart muscle and is tightly synchronized with the work of the heart. The rapid spread of the pulse wave causes a suction effect. Following the reduction of the vessel wall, the blood is just drawn from the aorta and large arteries to the smaller vessels down to the capillary bed. Systematic irregularities in the vascular pump are the starting point in the development of diseases of the cardiovascular system. These illnesses may be both local and systemic, depending on the size and the location of pathological changes in the vascular wall.

#### **Speaker Biography**

V A Mikhaylov was born on March 21, 1959 in Uglich, Yaroslavl province, Russia Professional experience: 1976- 1982- has finished the Ryazan medical institute named after I.P. Pavlov. 1982-1983- Emergency Hospital Ryazan medical intern's surgical department 1983-1985 - Regional Hospital of Kozmodemyansk, Mari ASSR -surgical oncologist 1985-1989- Regional Cancer Hospital, Ryazan — surgical oncologist 1989-1987 - State Research Center of Laser Medicine, Moscow, Senior Research Fellow, Department of Surgery of the biliary tract and parenchymal organs, 1994 - is nominated as the conducting scientific employer, Department of Surgery of the esophagus and stomach. 1997 — 2000 - Head of Moscow Scientific-Practical Center of laser Medicine. 2000 – 2006 -General Director of Scientific medical laser Center, Moscow. Since 2006 - private practices on family medicine in Moscow. 2013- Physician Contract with Eternity Medicine Institute, Dubai.

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October 25-26, 2017 | Toronto, Canada

## Paclitaxel-coated versus plain old balloon angioplasty for the treatment of infrainguinal arterial disease in diabetic patients: The Belgian diabetic IN.PACT trial

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<sup>2</sup>St. Jan Brugge University Hospital, Ostend, Belgium

**Background:** Several trials have shown that drug coated balloon (DCB) angioplasty reduce the rates of restenosis in the femoropopliteal artery. This controlled, prospective, multicenter study was designed to demonstrate the efficacy of DCB to inhibit restenosis of the infrainguinal arteries in an exclusive diabetic population.

**Methods:** Between 2012 and 2014, 106 diabetic patients with symptomatic peripheral arterial disease (PAD) were enrolled at 11 sites in Belgium, 54 treated with DCB angioplasty and 52 treated with plain old balloon angioplasty (POBA). The primary endpoint of the study is the primary patency, mean diameter restenosis and binary restenosis of the treated sites at 6 months without re-intervention in the interim.

**Results:** The 6-month mean diameter restenosis was significantly lower in the DCB arm than in the POBA group (29±36% vs. 46±35%, P=0.032) and the binary (≥50% diameter stenosis) restenosis rate was signicantly lower in DCB patients compared with the POBA's (27% vs. 49%, P=0.03). The primary patency was significantly better in the paclitaxel coated balloon

group (73% vs. 51%, P=0.03). The 6-month adverse effects rates were 5.5% in the POBA and 5.7% in the DCB arm.

**Conclusions:** The treatment of diabetic PAD of the infra-inguinal arteries with the DCB provides a better primary patency rate compared with the plain old balloon angioplasty. The use of DCB did not increase the number of major adverse clinical events when compared with those seen with the use of the uncoated balloons.

### **Speaker Biography**

Dr. Laura Kerselaers is a vascular and endovascular surgeon who works at the vascular department of University Hospital of Brussels (UZB), Belgium. Her clinical interest is in critical limb ischemia, aortic repair, lower extremity occlusive disease, carotid disease and varicose veins. Dr. Kerselaers obtained her medical degree at the University of Louvain (KUL) and completed training in general and vascular surgery at ZOL Genk. Immelda hospital Bonheiden and ETZ Tilburg. Later she completed fellowship training in vascular and endovascular surgery at the University Hospital of Louvain (UZL) and ZOL Genk. After completing this training, she joined the University Hospital of Brussels (UZB) as a staff vascular and endovascular surgeon in 2016.

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October 25-26, 2017 | Toronto, Canada

### Xpert MTB/RIF assay and early diagnosis of multi-drug resistant tubercular spondylodiscitis

Justin Arockiaraj

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**Introduction:** According to WHO global report 2015, India ranks second largest country in terms of number of Tuberculosis patients. Though TB of the spine accounts for <1%, with the emergence of multidrug drug resistance makes it a challenge to medical field. It is mandatory to detect early and to make proper management plans in terms of chemotherapy. Few papers have reported about drug resistant tuberculosis. The aim is to evaluate the role of Xpert MTB/RIF assay in early detection of multi-drug resistant tubercular spondylodiscitis.

Patients & Methods: This is a retrospective study conducted from 2006 to 2013 in our tertiary care center on all patients who were treated for tubercular spondylodiscitis. Only culture/Xpert MTB/RIF assay positive patients were included in the study. Their demographic profile, type of MDR, diagnostic criteria, medications, drug related complications and cost per patient analysis was done. All MDR patients were treated with five drug regimens for a period of 24 months as per drug susceptibility tests and WHO recommendations. The outcome parameters analyzed included clinical, bio-chemical and radiological criteria to assess healing status.

**Results:** During this study period (7 years), total of 561 patients were treated for tubercular spondylodiscitis. 36 of them had Multi-drug resistant tubercular spondylitis (prevalence-6.4%) and 3 had extremely drug resistant tubercular spondylitis (prevalence -0.5%) proven by culture and or Xpert MTB/Rif assay. One patient died due to septicemia and five were lost to follow up. 30 patients with mean age of 29 years and with mean

post-treatment follow up of 24 months were enrolled. 77% had secondary MDR. 17 (56%) patients underwent surgery and the rest had biopsy for diagnosis. Among those patients who had surgery, 60% of the patients had neurological deficit. 26 (87%) patients had completed two years of therapy and were healed and rest four were still on MDR treatment. Analysis of Xpert MTB/RIF assay showed 100% sensitivity and 92.3% specificity to detect rifampicin resistance. Drug related complications (33%) included ototoxicity, hypothyroidism and hyperpigmentation of skin. The cost per patient analysis for MDR patient showed 70 times increase when compared to that of conventional 1st line anti-tuberculous chemotherapy.

**Conclusions:** In conclusion, prevalence of MDR tubercular spondylodiscitis is 6.4%, the sensitivity and specificity of GeneXpert test to detect MDR is 100% and 92.3% respectively. 10 patients (33%) had drug related complications. The cost of drugs for MDR tubercular spondylodiscitis is 70 times more than that of 1st line ATT for conventional tuberculosis.

### **Speaker Biography**

I have completed my undergraduate (MBBS) and post graduate training (D. Ortho., M.S. Ortho., DNB Orthopaedics) in the field of Orthopaedics, at the Christian Medical College and Hospital, Vellore, India. I am currently working as an Associate Professor in the Spinal Disorder Surgery unit, Department of Orthopaedics. I am interested in academics and teaching. I am a resource person for Distance Education Program and Post graduate Diploma in Family Medicine. I regularly take classes for under graduate students, post graduate students and spine fellows. Tuberculosis is one among my favorite topics. I have couple of publications both in national and international journals.

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October 25-26, 2017 | Toronto, Canada

### Stability of femoral neck osteosynthesis: Comparison of different cannulated screws configurations

Renjie Xu

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**Objective:** The objective of this study was to compare the biomechanical characteristics of three cannulated screws in paralleled and non-paralleled (including crossed and divergent) configuration in treating femoral neck fractures, also to identify the association between bone mineral density and biomechanical characteristics in the femoral neck fractures using three cannulated screws.

**Methods:** Thirty-six femurs of human cadavers were divided into three groups (each group included 12 femurs). The bone mineral density of all the specimens was tested. Femoral neck fractures were simulated in all the specimens, followed by osteosynthesis using three cannulated screws in three kinds of configurations. Load test and torsion test were used to evaluate the biomechanical characteristics. Axial load test included single progressive test, cyclic fatigue test and destructive test. Torsion test included single progressive test and destructive test. Multiple linear regression models were constructed to analyze the statistics.

Results: Only when axial load was small (200N and 400N)

in single progressive test, the results showed no significant difference between crossed group and divergent group. After the adjustment for bone mineral density, other axial load tests showed paralleled group excelled divergent group, divergent group excelled crossed group. After the adjustment for bone mineral density, other torsion tests showed paralleled group excelled crossed group, crossed group excelled divergent group. After adjustment for configuration of cannulated screws, the greater the bone mineral density, the stronger will be the axial and anti-rotation strength.

**Conclusion:** Both the configuration of cannulated screws and bone mineral density can affect the axial strength and antirotation strength. The configuration appears to be even more weighted than bone mineral density.

#### **Speaker Biography**

Xu Renjie is an Associate Chief Physician in Orthopedic Department of Suzhou Municipal Hospital. He graduated with a Medical Doctor degree from Peking University in 2009. After graduation, he has worked in Suzhou Municipal Hospital, major in Trauma of Bone and Joint.

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October 25-26, 2017 | Toronto, Canada

### Venoplasty: A less frequent but essential procedure

Abdullah Al Jamil

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Statement of the Problem: Balloon venoplasty and stenting of venous obstruction was introduced in late 1980s and 1990s. Earliest venous stenting was done in 1997. It is less frequent but recognized essential procedure. Its clinically significant is more common in upper than lower extremities. Most commonly affected sites include axillary, brachial, cephalic, Subclavian, Superior vena cava, Femoral and Iliac veins. Majority of cases are hemodialysis catheter related from intimal hyperplasia and fibrosis due to intimal trauma secondary to catheter movement during cardiac cycle or due to propagating infection along the venous wall from entry point. Other causes include central venous catheter, pacemaker leads, radiation, trauma or external compression. Venous stenosis presents with swelling of affected area of drainage. Duplex scanning is less reliable in subclavian vein whereas venography is less reliable in femoral and iliac vein obstruction. Endovascular therapy is the effective modality of treatment. Balloon angioplasty preferred in subclavian veins and stenting preferred in femoral or iliac veins.

**Outcome:** In subclavian balloon angioplasty luminal diameter improvement in 70%, elastic recoil in 23% and failed in 7%. Restenosis develops in 81% at 7.6 months; one-year patency 35% and two-year patency 6%. Primary patency in subclavian

stenosis varies from 20% to 70%. Repeat procedure is needed in large number of patients. Femoral or iliac vein stenting has no in-stent restenosis at 27±4 months but stent thrombosis in 4%.

**Conclusion & Significance:** Majority of venous obstructions are iatrogenic mostly hemodialysis patients. It's a less frequent procedure but essential to keep open the vein related to dialysis, the lifeline for the patient. Need for repeat procedure is very high.

#### Speaker Biography

Abdullah Al Jamil graduated from Sher-E-Bangla Medical College, under Dhaka University, Bangladesh in 1988. He has started his career as House Physician in Department of Medicine, IPGMR, Dhaka. Then, he has served in CCU and Internal Medicine, Dhaka Medical College Hospital as Assistant Registrar and Registrar. He has obtained Fellowship in Medicine from Bangladesh College of Physicians and Surgeons in 1997. Subsequently, he has worked as Junior Consultant, Medicine, Shaheed Suhrawardy Hospital, Dhaka for three years. He has obtained MD Cardiology from Dhaka University in 2001. He has worked as Assistant and Associate Professor of Cardiology, Bangabandhu Sheikh Mujib Medical University, Dhaka over three years. Then, he has joined at Square Hospital as Consultant, Interventional Cardiology in January 2007. He has joined the present working place in June 2016. He has attended several International Conferences as faculty, and presented papers in USA, Switzerland, Japan and Singapore. He has performed 2130 procedures including PCIs, Device Implantations, Balloon Valvuloplasties, Peripheral Angioplasties and EPS and RFA.

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October 25-26, 2017 | Toronto, Canada

### Fibromatosis, a benign breast disease mimicking carcinoma: A case report

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<sup>3</sup>Polyclinic of Naples, Italy

**Introduction:** Fibromatosis is an uncommon breast lesion that can mimic breast carcinoma in its clinical presentation.

**Case Summary:** We present a clinical case in which a diagnosis and treatment dilemma existed, in terms of ultrasound findings that were not clear and suspicious, as well as results of Fine needle aspiration cytology. Our findings are compared with previous published cases. Also literature review regarding fibromatosis presentation and diagnosis has been discussed, as well as treatment options.

**Conclusion:** Management of breast fibromatosis remains controversial because of the low incidence and further efforts needed to establish evidence-based treatment guidelines.

### **Speaker Biography**

Arwa Ashoor is a Breast Oncoplastic Surgeon. Her main interest is Breast Surgical Oncology and Oncoplastic Breast Surgery with the aim to achieve maximum oncological treatment with the best appearance of the breast. She has many publications with regards to breast cancer field as well as book chapters. She is a Member of the Oncoplastic Breast Consortium Society.

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October 25-26, 2017 | Toronto, Canada

### Palliative medicine in surgery: The palliative medicine at the end of life

**Hilda Romero Zepeda** and **César Gutiérrez Samperio** Universidad Autónoma de Querétaro, México

The palliative medicine promotes its appropriate use respect to the will and dignity of the patient. It should be applied by a multidisciplinary team, who accompany the patient throughout the progression of their condition, strengthening doctors and health team's relationship with the patients and their families. The present presentation will describe and reflect the ethical and legal bases of palliative medicine: The concepts of palliative medicine, the patient-health team relationship and the right of the patients to receive palliative care, its application in surgery, the criterion defining the terminally ill, proportionate and disproportionate measures, drugs and procedures used, personnel to administrate it and for how long and how to avoid therapeutics obstinacy, will be reviewed, where it supports the palliative medicine at the end of the life.

#### **Speaker Biography**

Hilda Romero-Zepeda is one of the academic collaborators to establish the Three Nations Consortium Mex-USA-Can (2006-2011) on Bioethics and Public Policy for Science, and the Three Nation's Consortium for the Caribbean Research Ethics Education Initiative CREEI (2013-2018) between Clarkson University (USA), Saint George University (Grenada) and Universidad Autónoma de Querétaro (Mexico). Her interests of research have allowed her to establish and execute different intervention programs on chronic degenerative diseases and public health programs for both urban and rural indigenous communities, and its participation in processes of mainstreaming institutional curriculum for the equity of gender and eradication of violence towards vulnerable groups. Nowadays, she is working on intervention programs for community development and sustainability but from the ethics perspective for technology and biotechnology transferences to indigenous and marginal rural communities. She coordinates the Master's Degree Program on Applied Ethics and Bioethics, interdisciplinary studies in Applied Ethics and Bioethics. She is the Co-Organizer and Speaker at the International Certificate in Applied Ethics and Bioethics (2007-2016) and for the International Diplomado CREEI. She is the compiler in five interdisciplinary research and applied ethics books, co-author in 14 chapters of books, 8 indexed articles by invitation; Director or 11 joint Bachelor's, Master's and Doctoral thesis Advisor; 6 projects of research and bonding in joint in health public, development sustainable, bioethics and gender.

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October 25-26, 2017 | Toronto, Canada

### Searching Google for patient information on basal cell carcinoma

Weiguang Ho, Christopher David Jones and Hilal Bahia Ulster Hospital, UK

**Introduction:** Basal Cell Carcinoma (BCC) is the commonest type of skin cancer. Following consultation, patients often read about their condition online prior to biopsy. Google is currently the most popular internet search engine. We evaluated information on BCC available when using Google as a search tool for patient information.

**Methods:** The term 'Basal Cell Carcinoma' was searched using Google Chrome in 'Incognito' mode, with the cookies preset turned off. The first 5 pages of results were analyzed for information available on symptoms, prevention, diagnosis, staging and treatment; type of organization represented; use of citations and jargon; and whether the site was targeted towards patients or healthcare professionals. Website traffic information was gathered using Similar Web.

**Results:** 49 results returned from 45 unique websites. 36 were from the UK and 13 from USA. The commonest results were resource-, NHS-, and Charity-based websites. A significant

proportion was based on media and private healthcare. Most of the links permitted easy access to prevention strategies, symptoms, diagnosis and treatment, without excessive use of jargon. However, information on cancer staging and evidence citation was lacking. We felt that most websites were geared towards patients. The websites received an average of 100.2 million visits globally and 25.2 million visits from the UK in a month. Visits using search engines represented 74.6% of these.

**Conclusion:** Our findings reflected the scale of use of search engines by patients for information on BCC. Google has the potential for disseminating important information on a vast number of conditions. Certain areas with room for improvement were identified.

#### Speaker Biography

Weiguang Ho is currently working in the Department of Plastic Surgery at Ulster Hospital, Belfast United Kingdom.

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October 25-26, 2017 | Toronto, Canada

# Comparison between topical and infiltrative analgesia for post-operative pain in tonsillectomy patients: A double blind randomized controlled experimental study in tertiary care hospital

Montasir Junaid

Armed Forces Hospital Southern Region, Kingdom of Saudi Arabia

**Introduction:** Pain management after tonsillectomy has always been a challenge for the surgeon. Since immediate post-operative pain prohibits the patient from prompt recovery, leads to dissatisfaction of patient and delays in terms of proper diet intake eventually leading to complications such as infection, dehydration and secondary hemorrhage. Pain after tonsillectomy is maximum in first 72 hours and must be adequately controlled. Numerous studies have been done to show the effect of topical and infiltrative analgesia used per or post tonsillectomy but genuine paucity of research to compare both, still exists in literature.

Material & Methods: The study was conducted as an experimental, double blind randomized controlled trial at Jinnah medical and dental college hospital over the period of 3 year (2012-2015). A total of 180 patients with predominant male population with minimum age of 6 years and maximum of 37 years undergoing elective tonsillectomy were included. Two methods of analgesia administrations were used; topical and infiltrative. Topical analgesia was applied via soaked pack of analgesic agent after tonsillectomy in tonsillar fossa while infiltrative analgesia was applied via syringe over tonsillar pillars post tonsillectomy. The patients were randomly divided into six groups; Group 1: Topical 0.5% bupivacaine, Group 2: topical 2% lidocaine, Group 3: topical normal saline (placebo) Group 4: infiltrative 0.5 % bupivacaine Group 5: infiltrative 2 % lidocaine and Group 6: infiltrative normal saline (placebo). The Visual analogue pain scale was used to assess the pain at rest, swallowing and speaking at 4, 8, 12 and 16 hours and

at discharge. Frequency and type of analgesia (primary and additional secondary analgesia) used in ward and at home after discharge were noted along with any complications.

Results: Group with infiltration of 0.5% bupivacaine showed the most promising results in terms of decreasing pain in first 24 hours when assessed for speaking, swallowing and at rest. While the use of analgesia was significantly lower in the Infiltration of 0.5% bupivacaine group when compared with other groups. Further this group was the only one which showed no use of analgesia in 3 patients post operatively while use of additional second analgesia was minimal and the use of opioid analgesics was almost nil with this group. Most common complication in our study was secondary hemorrhage. Fewer patients used secondary analgesic at home.

**Conclusion:** Post tonsillectomy pain can be adequately controlled via infiltration with 0.5% bupivacaine and thus reduces pain in swallowing, speaking, and at rest, while the other analgesic agent such as xylocaine 2% proves to be another option if infiltration is used rather than topical pack.

### **Speaker Biography**

Montasir Junaid is an ENT Specialist with special interest in Otology and Head and Neck Surgery. He has worked as Assistant Professor in Pakistan and currently is a visiting faculty in Armed Forces Hospital southern region, Saudi Arabia. He has more than 25 publications and two books published as Author and Co-Author. He is also an Active Member of Pakistan Cochlear Implant Program, where cochlear implants are being done free of charge on financially challenged pediatric patients with complete hearing loss.

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October 25-26, 2017 | Toronto, Canada

### Inflammatory processes involved in cell signaling in trauma

**Tammy Luttrell** 

University of Colorado, USA

Trauma in all forms whether blunt, penetrating or fall related all result in injury and to some extent of an inflammatory response. Here a review of cell signaling mechanisms is presented as well as delineation between "osis" and "isis" discussed as it pertains to both diagnosis and treatment. Herein three case studies will be presented which demonstrate these principles in the trauma and orthopedic patient. The cases are inclusive of open abdomen, tendonitis, tendinosis and necrotizing fasciitis. In the trauma injuries that include open wounds, the discussion will include the use of silver- chitosan and hyaluronic acid, 3D-biopolymer scaffolds. The silver laden chitosan dressing has antimicrobial properties, facilitates hemostasis, and wicks vertically and this help substitute as a thriving extracellular matrix to promote antimicrobial activity, cellular proliferation with neovascularization and to promote

re-epithelization to overcome infections in complex wounds. Histology and pathology will be discussed as pertinent.

#### **Speaker Biography**

Tammy Luttrell thrives on challenges, especially those involving wound healing, where she has more than 20 years' experience treating patients with burns and chronic wounds. After graduating from Rolla Institute of Science, she pursued a Master's degree in physical therapy from Texas Woman's University. Her formal education culminated in May of 2012 with the completion of her PhD in Immunology Translational Science focusing on wound healing from the University of Colorado, Anschutz Medical Campus. Currently, clinically, she enjoys traveling and practicing in level I/II trauma centers/critical access hospitals and burn/wound centers across the nation. She is a Fellow of the American College of Certified Wound Specialist and is an active member of the ACCWS since 2006. She enjoys lecturing internationally and is the author of several publications and 2 book chapters on wound healing. She continues a lifelong pursuit of excellence in patient care, sharing and learning from patients and colleagues alike.

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October 25-26, 2017 | Toronto, Canada

#### It's Time to Introduce Novel Treatments for Chronic Back Pain Patients

**Aslam Khan** 

KKT International, Canada

The current treatment modalities for patients with chronic back pain are generally considered limited and inadequate, with a disproportionate focus on pain management, rather than addressing underlying causes. Spinal surgery is an option for some, but carries significant adverse effects and is reserved only for the most serious cases. Therefore, it is essential to begin introducing novel, non-invasive therapies which address the underlying pathologies of back pain. Perhaps the most rigorously studied intervention which satisfies the criteria are therapeutic vibrations applied to the spine via the KKT device. An initial randomized control study demonstrated significant improvement in back pain, range of motion, overall activity level and decrease consumption of pain medications. In a follow up study, a more objective measure, known as Mean Axis of Rotation (MAR), was calculated before and after treatment using cervical x-rays of subjects. The report found that twice the number of abnormal MARs (62%) were corrected by the vibrations compared to sham group (30%). Interestingly, several subjects which did not have a corrected MAR still experienced an improvement in pain and neck disability. This suggests that

the KKT vibration works by a mechanism other than MAR correction. A subsequent study began to look at potential cellular changes induced by KKT vibrations by applying the treatment to a bovine disc. After treatment application, an increase expression of collagen II, versican and aggrecan mRNA was detected. Since these proteins are associated with disc health, it provides further evidence that the vibrations can be used in patient with back pain secondary to disc pathology. Due to the lack of adequate treatment for back pain and the considerable evidence for the efficacy of the KKT Treatment, it is appropriate to begin introducing the KKT Treatment into the regular treatment algorithm for patients with chronic back pain.

#### **Speaker Biography**

Dr. Aslam Khan, founder of KKT International, a non-invasive procedure for treating the spine and its related conditions utilizing sound waves. KKT has been applied in more than 500,000 treatments around the globe. He graduated as a Chiropractor in 1991. He has been engaged in extensive research and discoveries in Orthopedic Medicine, with a specialty focus in Pain Management and Rehabilitation, Preventative Intervention, Anti-Aging, and Hormonal Modulation.

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