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Spine 2018 & Addiction 2018





Nicotine is an addictive substance present in cigarette smoke that causes a great number of health effects and is a leading cause of preventable death

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Objective: This article provides information regarding the addictive nature of nicotine, adverse health effects, current detection methods, alternative approaches, and smoking cessation.

Results and Discussion: An average cigarette allows a person to absorb approximately 1 mg of nicotine, which produces euphoria and establishes addiction. Nicotine binds to nicotinic receptors and activates cell signaling cascade leading to dopamine and other neurotransmitter release resulting in euphoria and pleasure. After exposure to nicotine for some time the receptors become unresponsive/desensitized. Later the receptors become responsive again due to abstinence, which is believed to play a role in dependence. A process called neuro adaptation also generates more nicotinic receptors in response to desensitization. Cigarette smoking produces harmful effects including cancer, cardiovascular disease, COPD, and congenital defects. Detection methods for nicotine include HPLC, HPLC MS/MS, semi-quantitative dipstick, Liquid Chromatography Tandem Mass Spectrometry (LCTMS), and Gas Chromatography Mass Spectrometry (GCMS). Alternative products/approaches to smoking includes cigars, pipe smoking, hookah, and e-cigarettes. Currently there is conflicting evidence comparing cigars, pipe smoking, and cigarettes on their effect on mortality. Many studies demonstrate modest

efficacy for e-cigarettes as a smoking cessation tool; however, current guidelines recommend use of other forms of nicotine replacement, bupropion SR, or Varenicline.

Implications: This article provides an overview of nicotine addiction through cigarette smoke, their health effects and detection methods. This article discusses the effects of alternative tobacco products and e-cigarettes compared to cigarettes. It also provides current treatment options for smoking cessation.

Speaker Biography

Wasana K Sumanasekera received her PhD. in Molecular Toxicology from Pennsylvania State University, USA in 2003. Currently she works as an Associate Professor of Pharmaceutical Sciences in College of Pharmacy, Sullivan University. Prior to joining Sullivan University, she has completed American Heart Association postdoctoral fellowship (2003-2006) in Biochemistry and Molecular Biology, worked as an adjunct professor in Biology and research associate in Cardiology (2006-2008) at the University of Louisville. She has completed numerous research projects in the areas of cardiology, cell and molecular biology, Biochemistry, substance abuse, and addiction. She has published her research in several peer-reviewed journals. She is a co-author of a U.S. patent, which was awarded in 2012. She is involved in the KY chapter of American Physiological Society (KY-APS) and currently serving as the president of KY chapter of American Physiological Society in USA.

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The Spiritual Spine: The secrets of chakras

Jessica Lucie Gutierrez

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Chakra means wheel in Sanskrit. The Vedas, which are the four oldest texts in Hindu literature, have used this term to describe the energy centers of the human being. They are spherical spirals located in the etheric body, more precisely in the Central Nervous System (the Brain and the Spine), which controls all the functions of the body and mind and acts as transmitters of energy. The chakras influence our activity through the functioning of the endocrine glands. These glands affect the functioning of our body, our mental balance and our emotional integrity. Cultivating our Spiritual Spine allows us to use the energy and abilities of each chakra to heal, strengthen and balance us. There are many tools to awaken our Spiritual Spine and thus promote its health (yoga, meditation, breath...)Through his tools, consciousness and energy travel through the canals of the Spine to awaken the chakras and reveal their hidden gifts.

Speaker Biography

Jessica Lucie Gutierrez after a Literary Baccalaureate pursued a course in "Cultural Management" to learn about the organization of cultural events (exhibitions, live performing arts, cultural heritage...) During her studies, she had the opportunity to write and put on a hybrid play which was a combination of live painting masterpiece and scenography. In her last job, she was working as a Manager in a feminist art gallery. Her responsibilities included the organization of a line-up of artists in line with feminist values and the promotion of their artwork towards visitors. At the same time, she is very interested in Neuroscience and personal development. These subjects fascinate her, and she wants to explore it more concretely. She decided in June 2018 to quit her job to travel the world, find partners and lead projects.

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Minimally invasive Spine Surgery applied to Traumatic Spine Injury: My experience at University of Maryland Prince George Hospital

Mehmet Fatih Inecikli

Recep Tayyip Erdogan University School of Medicine, Turkey

Many techniques are used in Interventional Radiology for treatment of Vertebral Disorders especially in Benign and Malign Vertebral fractures (VFs). Some of these are Vertebroplasty (VP), Kyphoplasty (KP), Sacroplasty and Vertebral Radiofrequency Ablation (VRFA). These procedures are applied for restoration vertebra in Benign and Malign VFs. It is aimed to strengthen the Spine, ablation of the mass lesion in the vertebra and reduce the pain in these procedures.

These operations are applied more easily with Minimal Invasive methods in Interventional Radiology. With new procedures such as Biplane Angiography devices and their system softwares. VP, KP and Sacroplasty procedures are stabilize VFs, reduce pain and morbidity that may develop secondary to fractures. VRFA is an effective treatment method in Vertebral Metastases, decreases or destroys Vertebral Metastatic mass. It was found to be meaningful that there was a statistically correlated pain reduction with these procedures (p<0.001). These procedures can be combined with treatments, applied in other clinical branches. These procedures can reduce hospitality stay. Minimal Invasive methods in Interventional Radiology are simple, effective, reliable and easy to perform. These procedures are diminishing back and lower back pain, developed secondarily to Vertebral Disorders with malign or benign reasons.

Speaker Biography

Mehmet Fatih Inecikli has completed his medical degree at the age of 25 years from the Atatürk University School of Medicine in Turkey. He is the assistant professor of Recep Tayyip Erdogan University, School of Medicine, Department of Radiology, Turkey. He has many publications that have been cited over 80 times. He is active participant and principal investigator in Interventional Radiology, especially focusing on Neurovascular Interventions and Minimal Invasive methods in Vertebral Disorders. He is current member of Cardiovascular and Interventional Radiology Society of Europe (CIRSE) and Turkish Society of Interventional Radiology.

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Joint Event 3rd International Conference on Spine and Spine Disorders & International Conference on Addiction Research and Therapy

November 26-27, 2018 | Dubai, UAE

Neuroscience serving our goals: Project

Jessica Lucie Gutierrez Paris VII University, France

My name is Lucie, I'm French, I'm 28 years old. I started 3 months ago a trip around the world, by myself. This is a project that started as a childhood dream and has become a reality. My idea is to develop cognitive abilities through social experiments based on neuroscientific exercises. In this way I can check for myself during the course of my trip around the world, if neuroscience is a field that can help to learn a foreign language faster, memorize routes and monuments, improve physical performances or even try to understand our unconscious through dreams. Many people have the idea that they are lacking legitimacy, are not smart enough, or aren't qualified to put tools related to Neuroscience into practice, to evolve and achieve their goals. We tend to believe that one must have done extensive studies in the field, know

precisely the anatomical, biological and brain functioning for that! I want to prove that it is possible for everyone. All this is a very broad and abstract project that I hope will eventually take shape with the help of neuroscientific partner.

Speaker Biography

Jessica Lucie Gutierrez after a Literary Baccalaureate pursued a course in "Cultural Management" to learn about the organization of cultural events (exhibitions, live performing arts, cultural heritage...) During her studies, she had the opportunity to write and put on a hybrid play which was a combination of live painting masterpiece and scenography. In her last job, she was working as a Manager in a feminist art gallery. Her responsibilities included the organization of a line-up of artists in line with feminist values and the promotion of their artworktowardsvisitors. At the same time, she is very interested in Neuroscience and personal development. These subjects fascinate her, and she wants to explore it more concretely. She decided in June 2018 to quit her job to travel the world, find partners and lead projects.

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Early Vertebroplasty for Spinal Metastatic Pain and Metastatic Fractures

Pankaj Nishikant Surange

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Pain due to Spinal Bony Metastasis and Metastatic Fractures in not uncommon. Most of these patients suffer from severe pain and do not respond adequately to medical management. Moreover, some of these patients have limited life expectancy and some of them have already reached the maximum radiation dose or have considerable side effects of radiotherapy, which is the mainstay of treatment. Specially, with Metastatic Fractures, it becomes difficult to heal due to loss of bony structures and these fractures make them crippled and leads to other complications related to loss of movements like Deep Vein Thrombosis, Bed-sores, Atelectasis.

90% of Vertebral Column Tumors are caused by metastasis from other organs. The vertebral column is the most common site of metastasis within the skeletal system, with 70% of diagnosed patients showing bone metastasis Sites of metastasis break down to 60-80% in the thoracic spine, 15-30% in the lumbar spine and <10% in the cervical spine. In 30% of Vertebral Setastasis from solid tumors, VCF occurs by reduction of vertebral bone strength via osteoblastic or osteoclastic activity. Spinal Metastasis can lead to economic loss, severe pain, neurologic injury, decreased life quality and even death.

Early diagnosis and treatment of Spinal Metastasis and Metastatic fracture can preserve the patient's quality of life and the possibility of physical activities. Conventional treatments include surgery, chemotherapy, hormone therapy, and medical therapy. Although treatment can increase the median survival rate, for most patients, the purpose of treatment is reduction of pain, local disease progression, spinal instability, and neurologic complications. Pharmacotherapy using anti-inflammatory drugs (NSAID) and opioids are first used to treat pain but requires extended periods of bed rest. Since cancer and its treatment reduce the patient's immunity and cause the patient to be in a hyper-coagulation state, prolonged bed rest may increase morbidity from infection, Pneumonia, Deep Vein Thrombosis,

Notes:

and Pulmonary Embolism. External Beam Radiation Therapy (EBRT) is effective against pain but requires at least 2-6 weeks to obtain results. Also, since continuous conventional EBRT can injure normal tissues and the nearby spinal cord, the procedure is limited by inevitable reduction of radiation dosage.

PVP is a minimally invasive method that can be performed under local anaesthesia with few complications; it can lead to rapid and effective cancer pain reduction with mechanical stability. Pain reduction after PVP is due to increased spine stability, tumor necrosis, and sensory nerve ending destruction. Tissue destruction occurs through highly exothermic reactions and local cytotoxic effects of Polymethyl Methacrylate (PMMA) polymerization. Furthermore, PMMA not only acts as an analgesic but also has antitumor effects. PMMA applied to a malignant vertebral body can cause tumor necrosis through its cytotoxic activity, thermal effect, and ischemia effect. Space-occupying cement blocks tumor cell growth. An early management with Percutaneous Vertebroplasty in Spinal Metastasis and particularly in Metastatic fracture can improve the quality of life and reduce their sufferings and complications.

Speaker Biography

Pankaj Nishikant Surange has completed his MBBS from G R Medical College, Gwalior, India; after which he had done MD (Anesthesiology) from Army Base Hospital, New Delhi, India. He has also done fellowship on Interventional Pain Practice-Budapest at Hungary. Currently he is director at Interventional Pain and Spine Center (IPSC India) located at New Delhi, India. He is Honary Secretary of Indian society for study of pain. He is Ex-Chairman of World Institute of Pain, India Sri Lanka Bangladesh and Pakistan Section; Founder member and Treasurer for Musculoskeletal Ultrasound Society of India and Founder member and Hon Secretary, Neuromodulation Spine society of India International Member of Spine Intervention Society. He is Academic head of Symbiosis International University for Pain management courses and invited faculty at various national and International conferences 2 Editorials and 3 International and 5 National Publications Book Chapters: 3. He was Recipient of Pain Awareness Ambassador Award 2015, Excellence in pain practice award by World Institute of pain 2017 and National Pain Physician of the year Award 2016.

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Multiple level transpedicular fixation of Lumbar Spine with PILF, TLIF, OLIF and ALIF 360 fusions and fixation improve the mobility and general activity and full recovery for Thoraco Lumbar and Sacral Degenerative

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The author for this technical report to establish the feasibility of performing the multi levels Transpedicular Fixation of Lumbar Spine with PILP, TLIF, OLIF and ALIF 360 fusions and fixation improve the mobilizing and general activity and full recovery Thoraco Lumbar and Sacral degenerative Spine disease.

1. First few cases Cervical Spondylotic Degenerative Multiple Disc Disease and with severe bilateral sciatica, mechanical pain, Radiculopathy and Spondylolisthesis at Lumbosacral area then have done Four Level Fixation with PILF and TLIF.

2. Second few cases: Lumbar Spondylolisthesis Degenerative Multiple Disc Disease, Spinal Stenosis and Lumbosacral Spondylolisthesis at lumbosacral area with bilateral sciatica and mechanical pain, radiculopathy and then I have done Five Level Fixation from L2 to S1 Transpedicular Fixation with TLIF, PLIF and OLIF.

3. Third case: Lumbar Spondylotic Degenerative Multiple Disc Disease and Spinal Stenosis at multiple level and Lumbosacral

Spondylolisthesis at more than one level with bilateral sciatica and mechanical pain, radiculopathy and then I have done Six Level Fixation from L1 to S1 Level Transpedicular Fixation with TLIF, PLIF and OLIF.

4. Fourth few cases: With Thoraco Lumbar Spondylotic Degenerative Multiple Disc Disease and Spinal Stenosis and Lumbar Spondylolisthesis at more than Two Levels with bilateral sciatica and mechanical pain and radiculopathy and I have done D11 to L4 Fixation.

Speaker Biography

Muhammad Qazafi Memon has completed MCPS in 2005 and FCPS in Neurosurgery at the age of 32 years from Liaquat National Hospital post graduate Center form via college of physician and surgeons of Pakistan and he has done spinal fellowships from Georgia, USA. He was the head of Department of Neurosurgery and Neuro Spinal department in PABM Hospital, Arar, KSA and he is doing MISS and Endoscopic Spinal Surgery and Complex 360 degrees spinal fixation in Universal Hospital Abu Dhabi and he is worked over multiple research papers of Spine Surgeries.

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Familial Aggregation of Substance Use Disorders in South-Eastern Nigeria: A family-controlled study

Justus Uchenna Onu

Federal Neuropsychiatric Hospital, Nigeria

Background: The generation of a robust genetic epidemiological data in Africa to drive public mental health education on the biological basis of Substance Use Disorders (SUDs), which has been popularly misconstrued as a moral failure, has become imperative, in order to encourage access to formal care by patients and allocation of resources by policy makers. There is paucity of data on the heritability of SUDs in Africa. To the best of the authors' knowledge this will be the first report from our continent regarding the familial and morbid risks of SUDs using our methodology.

Objective: This study will aim to assess the familial and morbid risks of SUDs and other Psychiatric Disorders in the First-Degree Relatives (FDRs) of pro bands with cannabis and alcohol dependence, in comparison with the families of a sample of healthy control group.

Hypothesis: We hypothesize that the FDRs of pro bands with SUDs are significantly more likely to have elevated risk of SUDs and other mental disorders than the relatives of a healthy control group.

Methods: This study will be an extension of our previous studies on the genetic epidemiology of Schizophrenia and Mood Disorders. The study will elicit information on the familial and morbid risks of SUDs among FDRs of probands with cannabis and alcohol dependence and relatives of a healthy control group through direct interview (in person or via telephone) of relatives using the Diagnostic Interview for Genetic Studies (DIGS). FDRs who could not be reached for direct interview will be interviewed using informant reports. Diagnosis of pro bands will be by consensus by two experts in this field. Best-estimate method will be used for the diagnosis in the relatives of the pro bands and the control. Logistic regression will be used to estimate the Odds Ratios (OR) and 95% Confidence Intervals (CI) for the differences in proportion of the affected versus unaffected FDRs, while the Weinberger shorter method will be used to estimate morbid risks.

Significance: It is hoped that the findings of this study will enrich the field of genetic epidemiology of SUDs in Africa. These data will be valuable to clinicians in public education and preventive services of genetic counselling in Africa.

Speaker Biography

Justus Uchenna Onu has completed his Fellowship at the age of 34 years from both the West African Postgraduate Medical College and National Postgraduate Medical College of Nigeria. He is a consultant psychiatrist at the Federal Neuropsychiatric Hospital, Enugu, Nigeria. He is the acting academic coordinator for the residency training program of the above institution, a reviewer for reputable Journals and has published about 5 original articles in both local and International Journals.

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Young Research Forum November 26, 2018

Spine 2018 & Addiction 2018





Illiac screws in Lumbo-Sacro-Iliac Fixation Lumbosacral Pathologies: Our experience

Vivek Rameshchandra Patel and Rahul Gupta Fortis Hospital, India

Background: Lumbo-Sacro-Pelvic Fixation may be required for complex lumbosacral pathologies where L5 or S1 screws cannot be placed. Iliac screw technique is adopted in treating certain typical conditions requiring long segment fixation such as in correction of adult Scoliosis, reduction of high-grade Spondylolisthesis, Sacral Fractures and surgical treatment of sacral tumors.

Methods: We describe our experience at our institution in which polyaxial pedicle screws construct has been successfully used.

Results: No instrumentation failure was noted. Continuity of

spine and pelvis was well established with the instrumentation. Patients were followed up for 6- 12 months.

Conclusion: Lumbo-Sacro-Pelvic-Fixation using iliac screw has been shown to improve biomechanical strength and seems to provide acceptable clinical result. Further follow up studies with long term clinical outcomes will be recommended

Speaker Biography

Vivek Rameshchandra Patel has completed his MBBS, MS, General Surgery at Nagpur. He had Fellowship at Indian Association of Gastrointestinal Surgeons, Mumbai, India and DNB Neurosurgery, New Delhi, India. Currently, pursuing Neurosurgery with special interests in the fields of spine surgery, Neuro endovascular surgery Fortis Hospital Mumbai.

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Impact of electronic cigarettes among University students in Bangladesh

Md Mehedi Hasan Ministry of Home Affairs, Bangladesh

he use of electronic cigarettes has becoming a growing trend especially by young people. Electronic cigarettes are the most common prototype of Electronic Nicotine Delivery Systems (ENDS) which deliver an aerosol by heating a solution that users inhale. The main constituents of the solution in addition to nicotine when nicotine is present are propylene glycol, with or without glycerol and flavoring agent. The aim of this research was to look at the impact of e-cigarettes among the university students in Bangladesh. A cross-sectional study was carried out using a semi structured questionnaire among the university students. The information of this research was based in primary survey. Major finding of the study suggests that 50.1% participants think e-cigarettes were great alternative where they cannot smoke traditional cigarettes and it should not banned from public places. Perception of these products as a safe alternative, appealing advertisements, and lax regulatory policies has helped gain popularity among the students. As a

policies has helped gain popularity among the students. As a result, students smoker were increased at 30.7% and especially female students were increased 15.4%. In addition, this study

also revealed that 12.7% smokers used e-cigarettes and others narcotics substance. Another great finding of the study revealed that female students are more narcotics addicted than previous at 8.9% because of e-cigarettes. To solve the dilemma, more scientific studies in this field are required. Prompt regulatory response with strict vigilance on marketing and advertising may be desirable in the interest of users and public at large.

Speaker Biography

Md Mehedi Hasan has completed his MS (Biochemistry and Molecular Biology) from Dhaka University, Bangladesh. He has been serving more than 6 years as assistant director in the Department of Narcotics Control (DNC), Security Services Division, Ministry of Home Affairs, Bangladesh. He has over many publications on narcotic drugs that have been cited in the departmental journals, experts of United Nations Office on Drugs and Crime (UNODC) developed International Standards on Drug Use Prevention (Second updated edition), did assessment along with UNODC on "Pharmaceutical drugs abuse in Bangladesh 2017 and has been serving as an editorial board member of Annual Drug Report of Bangladesh. He is focal person of DNC for International Narcotics Control Board (INCB) developed online tools International Import Export Communication System, Precursors Incident Communication System, NPS related project ION and Pre-export Notification System.

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Special Session November 26, 2018

Spine 2018 & Addiction 2018





Interlaminar/Interspinous and facet joint stabilization system in lumbar DDD: Preliminary results

Giancarlo Guizzardi Tuscany Surgical Center, Italy

Introduction: In the last years from the interspinous devices for motion preservation to treat the DDD in lumbar spine, many companies are shifted to devices for fusion. The aim of this presentation is to introduce a new system for Interlaminar/ interspinous and facet joints stabilization and fusion. This new device is very different from the other in the market for these.

Reasons:

• Double system for primary stability of the device (Interspinous/ interlaminar and facet joints.

• Contact bone to bone and not bone titanium to obtain a sort of biologic fusion

• A ligament to compress the bone and restore the lordosis.

Material and Methods: Then patients were operated on with this new device (CEE Approved) for Lumbar DDD with initial instability due to a loss of disc and ligament compliance after the failure of conservative treatment for a minimum of 6 months. In all the cases any other surgical procedure, like bone or soft tissue decompression, was added. The titanium scaffolds were filled by bone chips.

Results: The authors present the preliminary results of this new system. The evaluation from radiological (X-Ray and CT Scan) and clinical (VAS and QOL test) point view was performed the day after the surgery and at 1 and 3 months. No major complications were described intra or after the

surgery at moment. Good results were achieved in 88% of the patients with a percentage of fusion and stability at 93%.

Conclusion: A biggest number of patients and a longer follow up will be for sure requested to validate completely this new device, but these preliminary results must be considered very interesting.

Speaker Biography

Giancarlo Guizzardi is staff at Neurosurgical Department of the University and City Hospital of Florence (Chief of the Spine Surgery Section to December 2015) since September the 1st 1977. He is Specialist in Neurosurgery, Neurophisiopathology and Sport's Medicine. From the beginning of 80's he devoted his surgical activity especially to the surgical procedures of the degenerative, traumatic and Neoplastyc pathology of the spine (about 7000 procedures). He published about 90 papers and chapters in the most important Italian and international medical journals and books. He was invited as speaker, chairman and organizer to the most prestigious Italian and international meetings of spinal surgery. He invented and developed new devices, protocols and min-invasive approaches in "non-fusion" technologies in Degenerative Disk Disease of the Spine. Since 2002 he is agreement professor of the School of Medicine and Surgery at Florence University. He is in the editorial board of the "European Spine Journal". member of the editorial board of "Journal of Neurosurgical Sciences", of "World Neurosurgery", of "Asian Spine Journal", of the "World Spine Column Journal" and of the "Journal of Spinal Surgery". He is also corresponding member of the Society of South America Neurosurgical Societies, Honorary lifetime member of the Neuro Spinal Surgeons Association of India, active member of the EANS (European Association Neurosurgical Society), SINch (Italian Neurosurgical Society), GIS (Italia Spine Society), Eurospine (European Spine Society) and NASS (North American Spine Society). From December 1st, 2015 moved the surgical activity from Florence to the "Tuscany Surgical Hospital" in Arezzo where is the Head of the Spine Surgery Activity. From December 2016 "Guest Professor" by the first Affiliated Hospital of Zhejiang Chinese Medical University.

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Lumbar Spinal Canal Stenosis: Paradigm shift towards a targeted reduced decompression

Walter Bini Waldkrankenhaus Bad Duben, Germany

Lumbar Spinal Stenosis (LSS) is characterized by a narrowing of the lumbar spinal canal and/or the intervertebral foramina resulting from disc degeneration, bulging of the annulus, facet joint hypertrophy and infolding of the ligamentum flavum. With increase of the aging population and advances in diagnostic imaging capabilities, lumbar spinal stenosis in its different stages or types is becoming more frequently diagnosed with an estimated prevalence of up to 13%. This, along with newer technical advances being introduced in the surgical management of LSS, continues to pose a topic of discussion among neurologists as well as orthopedic and neurosurgeons as far as treatment strategies are concerned.

Especially the cases of moderate or "soft" stenosis, very different than the bony or consolidated type, warrant a detailed analysis of the primary interspinous devices used for both types along with a proposal for a decision-making protocol.

Based on our experience with the management of these two entities, we will focus on our results and future considerations with less invasive procedures which are proving over the last two decades to be a viable alternative for stenosis patients. Core of our presentation are our results with a minimal invasive procedure performed in 121 patients and their corresponding initial follow-up over 1 year with a 92% success rate evaluated by an independent observer. This is clearly in contrast with the 40-90% success rates and 14-35% complication rates reported and associated with standard decompression surgeries.

Furthermore, we will present our considerations of a further novel technique and the direction treatment options are developing towards with the corresponding scheduled clinical trial.

Speaker Biography

Walter Bini has completed his diploma at Westminster School, Simsbury Conn, USA and post-graduate degree at Universidad de Zaragoza, Facultad de Medicina, Zaragoza-Spain. In 2014, he was the Middle East Chairman of ISLASS. He was head of Neurosurgery at Sheikh Khalifa General Hospital, UAQ-UAE from 2014-2016. Currently, he is Consultant Neurosurgeon in Orthopedic Department, spine section of Lanzo Hospital COF, Lanzo d'Intelvi in Italy and also visiting consultant Neurosurgeon in Orthopedic Department at Healthpoint Hospital, UAE. Currently he is Neurosurgeon at Waldkrankenhaus Bad Duben, Germany.

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Instrumentation through Interrupted Trajectory in Complex Cervical Spine cases

Walid Attia and Khalid Al Musrea

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Purpose: Surgical challenges in complex spine cases include yet not limited and exposure, decompression near vital or neural structures, decompression at a blind angle, and difficult trajectories for instrumentation. Displaced bone pieces across the desired trajectory is a major challenge when it is the only available trajectory to use. The type and extent of image guidedsurgery for spine disorders still lacks evidence-based medicine proof. It is up to the health care providers sound judgement and expertise to do what is needed for the patient. The use of intraoperative CT-quality O-arm, and neuronavigational are still tested as aiding tools in such operative modalities.

Methods: We selected 2 Cervical Spine cases that were operated upon during the years 2009-2016 in our institute by the first author to be included in this study. Both represent complex traumatic spinal fractures. Both a major technical challenge in the trajectory jeopardizing the safety of instrumentation. In both cases the Medtronic O-arm and Medtronic Stealth Station were used as intraoperative mapping tools. **Results:** Intraoperative navigation tools were so useful in securing neural and vascular tissue safety, surpassing the trajectory difficulty, together with tough bony purchases of the hardware from the first and only trial of application when needed. Intraoperative CT taken by the o-arm was a useful confirmatory intraoperative test of proper hardware placement.

Conclusion: The intraoperative use of the O-arm and stealth station is very useful in this modality of Spine Surgeries.

Speaker Biography

Walid Attia was born on November 8, 1969, and right now he is consultant Neurosurgery/Spine surgery Director and Spine Fellowship Program Departments of Neurosurgery/Spine Surgery National Neuroscience Institute King Fahad Medical City. He is a recipient of the outstanding graduation grant (top 30 graduates) in the Republic High School Diploma examination, the Egyptian Ministry of Education. 1986 recipient of the outstanding graduation honour at Tanta University Faculty of Medicine (fourth on the class of 320 graduates).

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Adjacent disc injuries in Thoracolumbar fracture - Assessments and its significance. Development of the new DISC injury classification

Raman V Kalyan¹, A Hamilton², P Nolan², E Cooke², N Eames², M Crone² and D Marsh¹ ¹Royal National Orthopaedic Hospital, UK ²Royal Victoria Hospital, UK

Objectives: To measure short-term outcome of stable Thoracolumbar fracture and to analyse aspects of injury severity for their ability to predict outcome. To develop a new disc injury severity grading system in thoraco-lumbar spine fractures.

Study design: Prospective observational.

Patient sample: 44 patients with stable fractures between T11 and L5 vertebra, with no neurological deficit and treated conservatively were selected.

Methods: All had X-rays, CT and MRI imaging. Bony injury severity was scored on a seven-point ordinal scale based on a) comminution, b) apposition and c) kyphosis. Disc injury severity was scored on a newly developed six-point ordinal scale. Outcome (5 domains of pain and function each) was assessed at 1 to 2 years from injury. The data (patient demographic, pre-injury health status, injury and outcome variables) was analyzed by non-parametric correlation (for predictors of outcome) and stepwise linear regression analyses (to compare predictive value). Results: According to AO classification, the fractures were A1, A2, A3 and B1. The Spear-man correlation coefficients between injury severity and outcome were consistently higher with disc injury severity than bony e.g. for pain intensity the respective correlation was: .63 (p<.0001) and .28 (not significant), and for SF36-PCS: .41 (p<.01) and .25 (not significant). The predictive value of pain was 29% for disc injury severity and it increased by further 9%, 9% and 6% by addition of each of the following 3 variables respectively: "patient's preinjury mental status", "legal and Compensation issues pending" and "physical demand of job". The predictive value of function

was 16% for disc injury severity and it increased to 31% by the addition of "physical demand of the job" variable. The predictive value further increased by 5% by addition of variable "Legal and Compensation issues pending". All other variables were not significant.

Conclusion: A new grading system of disc injury severity was developed, and it showed good predictive value to pain and functional outcome. Disc injury severity has a better predictive value of short-term outcome compared to the bony injury severity. In the spectrum of injuries studied, the AO classification and the degree of kyphosis provided no prediction of outcome.

Speaker Biography

Raman V Kalyan is a Consultant Spine Surgeon from UK working in North East England. His busy practice covers a wide spectrum of both Adult and Paediatric Spine Pathologies. He is an Honorary Consultant in James Cook University Hospital, UK. From 1992 to 2000, he has gained extensive experience from working in numerous renowned spinal centres in UK, Europe and India. He started his training in Spinal Surgery in the famous institution Christian Medical College Hospital in India in 1992. In Europe, he got specialized training in spinal surgery by attaining the prestigious fellowship in France (under Prof J Dubousset, 1998) and Germany (Prof. J. Harms, 1997). In UK, he undertook further spinal training and fellowships under eminent surgeons in Edinburgh (Mr M Mc Master), Belfast and London (Stanmore Hospital). He obtained his dual accreditation (clinical and academic) in Trauma and Orthopaedics, by undertaking the Northern Ireland and Stanmore rotations. In 1996, he was elected for the TNOA travelling fellowship to visit few distinguished spinal surgeons. He was awarded the MD degree in Belfast for his research work in Spinal fractures and has won prizes for his research work. As a Clinical lecturer in UCL University London (2008 - 2009), he gained experience in conducting courses and teaching programmes. His research interests focus on Spinal Pain, Less invasive management of spinal pathologies, spinal fractures and spinal deformity.

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Mysteries of Spinal pain and pain distribution

Raman V Kalyan¹, A Hamilton², P Nolan², E Cooke², N Eames², M Crone² and D Marsh¹ ¹Royal National Orthopaedic Hospital, UK ²Royal Victoria Hospital, UK

Objectives: To analyze the pain distribution in the acute and chronic phase following Thoraco-lumbar fractures.

Study design: Prospective observational study

Subjects: 39 patients with fractures between T11 and L2, with no neurological deficit, were treated conservatively. Strict inclusion and exclusion criteria were applied. All had X-rays and MR imaging (whole spine) at post-injury and one-year followup.

Outcome measures & Methods: The patients documented their pain distribution using pain drawing, along with 10 other domains of pain and functional outcomes for a period over 12 months. The pain distribution was analyzed. The association of distal pain distribution to other associated injury, resultant kyphosis, pre-existing or increase in disc degeneration at the lower non-injured disc levels – were analyzed and reviewed

Results: The most common site of the pain distribution in both the acute (90%) and chronic phase (97%) was distal to the fracture (regions - iliac crest, lumbosacral junction and buttock). Factors mentioned above that could be related to distal pain distribution did not show any significant correlation (P>0.5) with different domains of pain outcome.

Conclusions: Some of the commonly believed reasons for distal pain distribution like resultant Kyphosis and associated disc/facet pathologies were not supported by our study findings.

The distal pain distribution corresponds to the scelerotomal referred pain mapping, which could be the probable explanation. Thoraco-lumbar pathologies could be the source of pain in patients complaining of low back symptoms. Distal pain distribution of spine pathologies should not be attributed as functional.

Speaker Biography

Raman V Kalyan is a Consultant Spine Surgeon from UK working in North East England. His busy practice covers a wide spectrum of both Adult and Paediatric Spine Pathologies. He is an Honorary Consultant in James Cook University Hospital, UK. From 1992 to 2000, he has gained extensive experience from working in numerous renowned spinal centres in UK, Europe and India. He started his training in Spinal Surgery in the famous institution Christian Medical College Hospital in India in 1992. In Europe, he got specialized training in Spinal Surgery by attaining the prestigious fellowship in France (under Prof J Dubousset, 1998) and Germany (Prof. J. Harms, 1997). In UK, he undertook further spinal training and fellowships under eminent surgeons in Edinburgh (Mr M Mc Master), Belfast and London (Stanmore Hospital). He obtained his dual accreditation (clinical and academic) in Trauma and Orthopaedics, by undertaking the Northern Ireland and Stanmore rotations. In 1996, he was elected for the TNOA travelling fellowship to visit few distinguished spinal surgeons. He was awarded the MD degree in Belfast for his research work in Spinal fractures and has won prizes for his research work. As a Clinical lecturer in UCL University London (2008 - 2009), he gained experience in conducting courses and teaching programmes. His research interests focus on Spinal Pain, Less invasive management of Spinal Pathologies, Spinal fractures and Spinal deformity.

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The evaluation of posterior transpedicular dynamic stabilization and present situation

Ali Fahir Ozer

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Transpedicular Dynamic Stabilization was developed as an alternative method to spinal fusion in mostly degenerative cases. There are two major system currently used, first dynamic rods and the second dynamic screws. In this presentation our experiences were discussed either both these systems separately or combination of both as a treatment modality in chronic instability cases. On the other hand, we discussed problems and complications of dynamic systems and, we discussed what should be an ideal transpedicular dynamic system.

Speaker Biography

Ali Fahir Ozer graduated from Atatürk University School of Medicine in 1976. He did his Neurosurgery residency between 1977 and 1982 at Hacettepe University School of Medicine. He obtained his Associate Professor degree in 1988 and Full-Professorship in 1994. He has been working at American Hospital Neurosurgery department since 1995 and is currently a faculty at Koc University School of Medicine, Department of Neurosurgery. Professor Özer has a membership of different associations including Euro spine and North American Spine Society. He also is the member of advisory board and reviewer of many scientific journals. He has authored or co-authored well over 70 papers and wrote lots of book chapters. Dr. Ozer's research mainly focuses on biomechanics of spine, and dynamic stabilization of spine. He owns a patent which is a new cervical disc reactor that he himself designed and even contributed to its production.

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Full-endoscopic operations of Lumbar Disc Herniation and Spinal Stenosis - State of the art, possibilities and retrospective review of overall 1054 operated patients

Marko Markovic¹ and Nenad Živkovi² ¹Medigroup Hospital, Serbia ²Clinical Hospital Center Zemun, Serbia

Introduction: Full-endoscopic operations of lumbar spine are truly Minimally Invasive surgical procedures. Endoscopic techniques have become the standard in many areas because of the advantages they offer intraoperatively and after surgery. With the interlaminar and transforaminal approach, two full-endoscopic procedures are available for lumbar compressive lesion operations.

Aim: To present and explain all aspects of the full-endoscopic operative technique, and presentation of results of lumbar discectomies and Monosegmental Decompression in Ddisc Herniation and Monosegmental Spinal Canal Stenosis.

Material and Methods: A series of overall 1054 patients underwent full-endoscopic interlaminar and transforaminal lumbar discectomy and spinal canal decompression, 946 patients had disc herniation and 108 Spinal Canal Stenosis. In addition to general and specific parameters, VAS and ODI scale are used as a measuring instrument.

Results: In disc herniation group 88% of the patients no longer had leg pain, and 7% had only occasional pain, postoperatively. In seven patients minor nerve damage resulted in transient parestesias, and in two patients resulted in neurological deficit. Dural tear occurred in 8 patients, and only one had reoperation for direct dural repair. The recurrence rate was 8%. Resection of the herniated disc and enough decompression was technically possible in all cases. In the spinal stenosis group 78.1% had significant improvement, 13.6% had improvement with occasional pain and parestesias, and 8% had no significant improvement. Dural tear occurred in 4 (3.7%) patients and none of them had reoperation.

Conclusion: The clinical results of the full-endoscopic technique are highly acceptable with advantages such as reduced traumatization, improved patient mobility, and low complication and recurrence rate. All forms of lumbar disc herniations and Monosegmental Stenosis could be sufficiently removed using the full-endoscopic interlaminar and transforaminal approach, when taking the appropriate indication criteria into account.

Speaker Biography

Marko Markovic is currently working as surgeon in Medigroup Hospital at Serbia and he was born on February 13th, 1974 in Belgrade, Serbia. He graduated on School of Medicine University of Belgrade in 1998. Finished specialization of Neurosurgery in April 2006. on Clinic of Neurosurgery, Clinical Centre of Serbia. Also, master's degree from Neurosurgery on School of Medicine, University of Belgrade in 2003. Defended doctoral dissertation in 2013 and the thesis title is "Prognostic value of Peritumoral Edema and Angiogenesis in Intracranial Meningioma surgery". Finished highly specialized advanced training courses for Full-Endoscopic and Microsurgical Minimally Invasive Spine Surgery in one of the biggest references centres in Europe "St Anna Hospital" in Herne and "Schon Klinik" in Munich, Germany. Introduced in Serbia (in standardized and routine clinical practice) Full-Endoscopic surgical technique in treatment of degenerative spinal disorders, on beginning of 2011, and became pioneer of truly minimally invasive spine surgery in Serbia and surrounding region. Author of numerous articles, among them especially significant "Full-endoscopic interlaminar operations in lumbar compressive lesions surgery: prospective study of 350 patients - Endos study" published in "Journal of Neurosurgical Science" in June 2016, and "Full-endoscopic interlaminar versus microsurgical operations in lumbar compressive lesions surgery: Prospective randomized trial of overall 570 Patients" published in "Journal of Pain & Relief" in November 2017. Promoted in International Instructor for Full-Endoscopic Surgery of Spine from "Riwo Spine" company, on beginning of 2017. Leader of "centre of excellence" for minimally invasive spine surgery in Medigroup Hospital the biggest healthcare private system in Serbia.

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Harm Reduction Psychotherapy: A promising approach to Addiction Treatment

Karine E Bekhazi Novomeds Clinics, UAE

ith increasing rates of substance misuse disorders, there has been a rise of interest in non-traditional psychological routes of treatment. Addiction has been identified as a chronic illness, the effects of which run across generations, making it one of the most challenging mental health problems to treat, often with poor therapeutic outcomes and high rates of relapse (Monti et al., 1999). Harm Reduction strategies arise from this very assumption that most people will continue to use substances despite receiving help from an array of services, thus making abstinence a somewhat unattainable goal (Collins et al., 2015), and instead focuses primarily on valuable incremental changes that can minimize the potential for harm (Tatarsky, 2003). Traditional macro-level harm reduction strategies target associated risk factors (sexual risks, sharing of needles/ HIV, driving accidents, social pressure, pain management) as they can perpetuate substance misuse outside the walls of the therapy room. From a psychotherapy perspective however, Harm Reduction essentially involves intervening at the preaction stage, by assessing risk of harm, aligning therapeutic practices to meet the client where they are and decreases resistance by addressing ambivalence towards change (Miller & Rollnick, 2012). Harm reduction as a starting point in therapy, has previously been associated with enhancement of client's self-

efficacy and motivation to bring about further positive changes, as well as a subsequent increase with engagement in long-term psychotherapy (Denning & Little, 2011). Harm reduction therapy also promises to be an advantageous method of intervention, especially due to the ease with which it can be integrated within primary care settings as well as emergency medical services. This presentation will address emerging empirical evidence about Harm Reduction Psychotherapy, its clinical practice and discuss its wider implications for the treatment of addiction.

Speaker Biography

Kareen E Bekhazi is Head of Novomed Psychiatry & Neurology's Psychology Department and holds a Doctorate in Clinical Psychology from California Southern University. She has completed extensive training in Cognitive Behavioral Therapy (CBT) from the Beck Institute in the USA, with a focus on depression, anxiety, bipolar disorders and personality disorders. She is also trained in newer modalities such as dialectical behavior therapy (DBT) and acceptance and commitment therapy (ACT). She has many professional interests and treats a variety of mental disorders. She is highly experienced in treating substance abuse and addictions with integrative harm therapy. This experience includes working with the UN Office of Drugs and Crimes as a delegate to train other mental health professionals to deliver addiction treatment in the Mena region. She also specializes in treating couples using the acclaimed HEART approach. She firmly agrees with author and therapist David Richo's assertion that "our wounds are most often the openings into the best and most beautiful part of us".

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Surgical management of Tuberculosis of the Spine: A retrospective analysis of 127 cases in a Tertiary Care Hospital of Bangladesh

Shafiul Alam

National Institute of Neurosciences and Hospital, Bangladesh

Introduction: Tuberculosis was a leading cause of mortality in the beginning of the twentieth century. Improvement in the socio-economic status led to a major decline in the prevalence even before the introduction of anti-tubercular drugs. However, it continues to be a major public health problem in developing countries like Bangladesh. The objective of current study is to observe the results of surgical treatment of tuberculosis of the spine.

Materials and Methods: This is a retrospective study. This was carried out in the department of Neurosurgery, National Institute of Neurosciences & Hospital, Dhaka, Bangladesh during the period of January 2013 to December 2017. The patients were divided into two groups. One group was treated by surgery without instrumentation and other group was treated by surgery with instrumentation. All patients given antitubercular drugs for 18 months. The outcome of the treatment was recorded and analyzed.

Results: Total number 127 cases were treated during the study period with the diagnosis of Tuberculosis of the spine. The

mean age of the patient was 32 years. Among them in 72 cases only surgical decompression done and other 55 cases were treated by surgical decompression and stabilization. Significant neurological improvement observed in the both groups of patients. Only one patient failed to improve neurologically. Two patients developed resistant to first line anti-tubercular drugs and one patient showed hardwire failure.

Conclusion: Early surgical intervention is optimum mode of treatment. Surgery without instrumentation is the preferred option in developing country like Bangladesh.

Speaker Biography

Shafiul Alam is Associate Professor of Department of Neurosurgery at National Institute of Neurosciences & Hospital, Dhaka, Bangladesh. He has completed his MBBS from Rangpur Medical College, Bangladesh; FCPS Surgery from Bangladesh College of Surgeons & Physicians and MS in Neurosurgery from Dhaka University, Bangladesh. He has 13 National and 2 International publications. He has also served as Joint Secretary, Bangladesh Society of Neurosurgeons; Executive member, Neurospine Society of Bangladesh; Trained in Neuroendoscopy, Japan; Advanced training in Spine, India; Advanced training in Gamma Knife Neurosurgery, Singapore.

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Joint Event 3rd International Conference on Spine and Spine Disorders & International Conference on Addiction Research and Therapy

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Role of Addiction specialists in prevention of Opioid overdose deaths

Jaswinder Singh Gandhi

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ecently there has been epidemic of Opioid use disorders in Certain parts of world and hence the mortality associated with Opioid overdose. Different studies show that Opioid overdose is generally witnessed, death takes a while and is generally due to respiratory failure. Addiction is a chronic relapsing disorder where even a recovering patient can relapse anytime and die of Opioid overdose. Because many OUD patients come to addiction specialist for treatment, these physicians can play a major role in reducing the mortality of OUD by educating the patients and their Significant Others against Opioid overdose and prescribing Naloxone to them in addition to other addiction medicines. They can keep Naloxone at a safe place and use it in case they witness an Opioid overdose and save a life. Naloxone a pure Opioid antagonist is very safe, reliable, cheap, easily available and fast acting drug. Naloxone causes reversal of sedation and respiratory depression associated with Opioid Overdose within minutes and it has no side effect of its own even in higher doses. Recently newer preparation of Naloxone in form of Nasal Spray (Narcan) has been approved by FDA to prevent overdose deaths. In some developed countries Naloxone Dispensing program is being practiced widely and they have been able to minimize the mortality associated with Opioid overdose. Also, there is Good Samaritan law being implemented in these countries where even a layman can give Naloxone in case of witnessed Opioid overdose. Unfortunately, in certain parts of world including India there is yet no hold

of OEND even in tertiary health care centers. As an addiction specialist certified by ISAM, in last four years I have been able to save 14 patients in emergency with Naloxone who were brought to me with Opioid overdose respiratory depression

Speaker Biography

Jaswinder Singh Gandhi is working with an NGO "Amrit Drug De-addiction and Research Foundation". He has 15 years' experience in drug de addiction field with more than 2500 patients. He is a member of various national and international Institutions which are working on drug de-addiction namely ASAM, NAADAC, ISAM, IPS, IMA, ISA, ISCCM, ISSM. In addition to a MBBS and MD degree, he is certified by ISAM (International Society of Addiction Medicine) in substance use disorders scoring 82% marks. ISAM is funded by World Health Organization and NIDA(USA). He has attended many national and International Conferences (Netherlands, Germany, Australia, Spain, Malaysia, Thailand) and has presented his research works on de-addiction. Recently he presented his work in WPA conference held at Madrid (Spain) and IPS conference at Hyderabad and AIIMS New Delhi. His research papers have been published in International journals of repute with high impact factor. He is a reviewer of Buprenorphine website "Buppractice" which has trained more than 3000 doctors, and which is funded entirely by SAMHSA (American Govt.). He has won 3000 US Dollars fellowship award at ISAM 2013 conference held at Kuala lumpur where more than 1000 doctors from 100 countries of the world had participated. In year 2014 he has been nominated for prestigious "Voice" awards of SAMHSA (American Govt.) He has been given state award on 15 August 2015 by Govt. for his services in field of Drug de-addiction. He has developed an interactive software "SANTAM" helping patients as well as physicians in diagnosis and treatment of Substance Use Disorder. This software is first of its kind in Punjabi. This software is available for free download. This software has been translated in many languages and at present being used at premier mental health institute NIMHANS, Bangalore. In addition, his articles and stories are being published regularly in various leading newspapers, magazines and International Journals of repute. He is appearing regularly on Television and Radio shows for live interactive talk against drug addiction.

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Cervical spine fusion and shoulder pain: A new algorithm

Lorena Pena Larrea

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The complex problem of combined neck and shoulder pain is not rarely seen in our patients as the main complaint. Some of them need a shoulder procedure (subacromial decompressions or rotator cuff repairs) and an anterior cervical spine fusion. This select group of complex patients illustrates the diagnostic studies required to determine whether the pain comes primarily from the cervical spine, shoulder, or both. Our goal is a good pain relief in these patients.

On the one hand, some patients suffer nearly equal neck and shoulder pain as the chief complaint. On the other hand, the initial complaint in some others is predominantly neck pain with only minor shoulder involvement. Sometimes, the shoulder pain becomes more significant after the anterior cervical fusion. This new algorithm emphasizes the need for a careful evaluation of patients with combined neck-shoulder pain syndrome in a systematic approach allowing appropriate treatment.

Many patients who have neck-shoulder pain syndrome offer a diagnostic and therapeutic challenge, particularly when there is dual pathology. It is potentially a frustrating situation for both patient and surgeon when the pain is present at more than one site. Frequently, the primary pathology in such a case is either in the cervical spine or in the shoulder, so the patient responds to appropriate measures directed at the site responsible for the pain. It is well known that the cervical spine can be responsible for referred pain to the shoulder and even down the arms. This often occurs in a radicular pattern and can be exacerbated by certain neck motions. Such radiating pain may eventuate in secondary shoulder pathology such as tendinitis or adhesive

capsulitis, often leaving the patient with symptoms emanating from both sites. Occasionally there are separate cervical and shoulder pathologies that may arise either simultaneously or sequentially, accounting for pain from both the cervical spine and shoulder. As a rule, shoulder pathology does not refer pain into the neck but may cause pain along the scapula and trapezius muscles.

If the surgeon hopes to help these patients, a careful evaluation must be performed to find the source of the primary pathology. Physical examination suggests that the cervical spine should be investigated if patients have localized posterior cervical spine tenderness and a painful diminished range of motion of the neck. Similarly, physical examination findings of localized tenderness, impigement-aggravated signs, diminished motions, and/or weakness in the shoulder suggests the shoulder as the primary source of pathology. Occasionally, dual findings are present, presenting a confusing picture.

The purpose of this speech is to suggest a guideline for investigation and treatment of these patients, something like a protocol to work with and follow. A careful evaluation is critical to identify the primary pathology and to direct treatment to that particular site.

Speaker Biography

Lorena Pena Larrea has completed her PhD from University of Navarra; Spain and she is doing Post-doctoral studies from the University of Oviedo. She has presented more than 20 posters and oral communications in national and international congresses.

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Women, Trauma and Alcohol Dependency: Connections and disconnections in alcohol treatment for women

Deanna L Mulvihill TLI Foundation, USA

Statement of the Problem: Women who have experienced Intimate Partner Violence (IPV) are at greater risk for physical and mental health problems including Post Traumatic Stress Disorder (PTSD) and alcohol dependency. On their own IPV, PTSD and alcohol dependency result in significant personal, social and economic cost and the impact of all three may compound these costs. Researchers have reported that women with these experiences are more difficult to treat and many do not access treatment and those who do, frequently do not stay because of difficulty maintaining helping relationships. However, these women perspective have not been previously studied. The purpose of this study is to describe the experience of seeking help for alcohol dependency by women with PTSD and a history of IPV in the context in which it occurs.

Methodology and Theoretical Orientation: An inter subjective ethnographic study using hermeneutic dialogue was utilized during participant observation, in-depth interviews and focus groups. An ecological framework was utilized to focus on the interaction between the counselors and the staff to understand this relationship and the context in which it occurs.

Findings: The women in this study were very active help seekers. They encountered many gaps in continuity of care

including discharge because of relapse. Although the treatment center was a warm, healing and spiritual place, the women left the center without treatment for their trauma needs and many without any referral to address these outstanding issues.

Conclusion & Significance: Women with alcohol dependence and PTSD with a history of IPV want help however the health and social services do not always recognize their calls for help or their symptoms of distress. Recommendations are made for treatment centers to become trauma-informed that would help this recognition.

Speaker Biography

Deanna L Mulvihill is a Senior Nurse Therapist and a researcher who has developed a technique called Rebinding of the Body which helps people recover from trauma, learn self-help techniques and lead more productive lives. Her intersubjective ethnographic study has been published in a text called, "Women, Trauma and Alcohol Dependency, Connection and disconnections in alcohol treatment for women". She has published several articles in child and family psychiatry including an extensive literature review called "The Health Impact of Childhood Trauma". Presently, she has a small private practice and she works as a consultant for Cogenz and Thought Leadership and Innovation Foundation. She graduated from the University of Western Ontario with Doctor of Philosophy in Nursing in 2009. Her dissertation was "Seeking and Obtaining Help for Alcohol Dependence by Women who have Posttraumatic Stress Disorder and a History of Intimate Partner Violence.

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Single or Cervical Multiple Levels Arthroplasty is a safe option for active and functional mobility of cervical degenerative with minimal inavasiveness

Muhammad Qazafi Memon Universal Hospital, UAE

The author for this technical report to establish the feasibility of performing the single or multi levels Cervical Arthroplasty is a safe option for active and functional mobility of Cervical Degenerative Spine Disease.

1. First few cases: Cervical Spondylotic Radiculopathy with severe right or left and bilateral brachalgia and cervicalgia secondary to large postero lateral prolapsed disc treated with single level Arthroplasty.

2. Second few cases: Two levels Cervical Disc Herniation with Bilateral Radiculopathy and bilateral brachalgia and cervicalgia and treated with two adjust level arthroplasty.

3. Third case: Three level cervical disc and bilateral brachialgia and cervicalgia and treated with three adjust level and all three groups of patients were operated with small incision and Arthroplasty with artificial disc replacement surgery technical aspects and clinical outcome have been reported. No intra or post-operative complications were encountered. Intra operative blood loss was minimal. The patient has cosmetic scars on healing. Standard procedure of placement of artificial titanium disc is enough for normal mobility and active movement with minimally invasive approach for artificial titanium disc replacement in single and multiple levels with good outcome and active mobility.

Speaker Biography

Muhammed Qazafi has completed MCPS in 2005 and FCPS in Neurosurgery at the age of 32 years from Liaquat National Hospital post graduate centre form via college of physician and surgeons of Pakistan and he has done Spinal Fellowships from Georgia, USA. He was the Head of Department of Neurosurgery and Neuro Spinal department in PABM Hospital, Arar, KSA and he is doing MISS and Endoscopic Spinal Surgery and Complex 360 degrees spinal fixation in Universal Hospital Abu Dhabi and he is worked over multiple research papers of Spine Surgeries.

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The effects of a theory – Based educational program on beliefs and physical activity behavior of chronic low back pain patients

Sedegheh Sadat Tvafian and Golam Ali Heidari Tarbiat Modarres University, Iran

This is a randomized clinical trial study in which the effectiveness of an educational program on beliefs and Physical Activity (PA) behavior of Chronic Low Back Pain (CLBP) was explored. Firstly, 88 eligible patients were randomly divided into the intervention (N=43) and the control group (N=45). Just the intervention group received the educational program based on Theory of Reasoned Action (TRA). The mean age of the intervention and the control group were 40.14±6.8 and 38.33±5.46 respectively. The constructs of behavioral beliefs (p=0.002), evaluation of behavioral outcomes (p<0.001), normative beliefs (p<0.001) and motivation to comply with normative belief (p=0.005) in the intervention group were improved significantly compared with the other group. Although, PA in the intervention group was promoted for 6

months (p<0.001), the interaction between time and group in terms of this behavior was not significant (p=0.21). This study verified that the designed educational program based on TRA constructs could improve beliefs of CLBP patients to decrease fear of pain and physical inactivity. This study showed the designed theory-based education program could be a baseline to improve beliefs of CLBP patients to increase their PA gradually.

Speaker Biography

Sedegheh Sadat Tvafian has completed her PhD at the age of 44 years from Tehran University of Medical Sciences, Iran. She is the professor of Tarbiat Modares University, Iran. She has over 55 publications that have been cited over 500 times, and her publication H-index is 13 and has been serving as an editorial board member of reputed Journals.

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Contribution of the blood biochemical factors, body composition and genetics to low back pain manifestation in complex Arab pedigrees

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Objective: Evidence has suggested that the development of low back pain (LBP) is often associated with obesity, muscle loss and sarcopenia. The mechanisms of these associations remain unclear. To clarify this, we measured circulating levels of a selected panel of soluble factors, presumably involved in the pathogenesis of obesity and sarcopenia, and correlated them with several LBP-related characteristics, considering body composition, familial effects and other relevant covariates.

Methods: The cross-sectional study comprised of 1078 Arab-Israeli individuals. Patients were recruited based on self-reported LBP. Body composition variables (including fat and muscle mass measurements) assessed by bioelectrical impedance analysis (BIA) and anthropometric measurements, scoliosis as measured by scoliometer, and plasma levels of several cytokines by ELISA method were collected. Statistical analyses accounted for familial composition of the sample and possible putative genetic effects.

Results: LBP affected individuals were significantly older, and showed increased obesity, decreased skeletal mass, and a significant correlation with spinal scoliosis when compared to healthy controls. Putative genetic factors were significantly associated with the age of onset of LBP, regardless of sciatic pain. Using univariate analyses, plasma concentrations of GDF-15, leptin, chemerin and follistatin were found to be significantly

elevated in the LBP-affected groups (with or without sciatic pain) and were highly significantly (p<0.001) associated with other LBP-related phenotypes, specifically, disease duration, disability and physician consultation. However, following adjustment for age, sex, body composition, and putative genetic factors, only associations between GDF-15, LBP disability and medical consulting phenotypes, remained significant.

Conclusions: For the first time, we report a significant and independent association between plasma GDF-15 concentrations and LBP-associated disability. Longitudinal studies are recommended to determine whether GDF-15 could be a novel therapeutic target for prevention and/or treatment of LBP.

Speaker Biography

Nader Tarabeih is a PhD student in the Department of Anatomy and Anthropology in the Tel-Aviv University, under the supervision of professor Gregory Livshits. His PhD project on Complex Arab pedigrees was consisting of 1104 volunteer individuals belonging to 28 complex Arab pedigrees with high prevalence of Low Back Pain (LBP). The advantage of a huge sample allowed Nader to accurately estimate contribution of the putative genetic factors to the manifestation of LBP, represented in his first manuscript entitled "Genetic, Body Composition and Demographic Risk Factors of Low Back Pain in Complex Arab Pedigrees" submitted for publication in The Clinical Journal of pain. The second manuscript, in which detailed "Growth and differentiation factor 15 (GDF-15) is a biomarker for low back pain-associated disability", is in preparation. Nader recently participated in BIRAX Ageing Council 2018 which was in London.

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