

DAY 1

Scientific Tracks & Abstracts



European Conference on

Orthopedics and Osteoporosis

November 29-30, 2018 Amsterdam, Netherlands

DAY 1

November 29, 2018

Sessions

Orthopedic Rehabilitation | Orthopedic surgery |
Orthopedic Diagnostic Techniques | Orthopedic
medical devices | Pediatric Orthopedics | Arthritis |
Musculoskeletal disorder | Osteoporosis | Sports

Session Chair

V Siva Subramaniyan
SSSIHL, India

Session Co-Chair

Izak Daizade
UNFO Medical center, Israel

Session Introduction

- Title: Circular acetabular osteotomy and cup implantation in Postdysplastic Hip Arthritis**
Jiri Stehlik, Ceske Budejovice Hospital, Czech Republic
- Title: LifeAid combo trial: Rheumatoid arthritis**
Anat Avissar Koren, Life Aid Combo, NetherLand
- Title: Adapted reflex therapy in musculoskeletal pain states**
Gunnel Berry, Cardiff Metropolitan University, UK
- Title: Orthopaedic applications of scintimetric characterization by Dr. V Siva's retention ratio**
V Siva Subramaniyan, SSSIHL, India
- Title: Investigations in septic arthritis: How good are they?**
Paul Andrzejowski, Bradford Royal Infirmary, UK
- Title: Conservative approach of ayurvedic integrated treatment for joint and soft tissue injuries: Faster recovery and a better option compared to surgery**
Arshad P, Daisman Sports medicine Hospital, India
- Title: Native knee septic arthritis: Sensitivity and specificity of investigations**
Paul Andrzejowski, Bradford Royal Infirmary, UK
- Title: Red flag in the physiotherapy management of bilateral carpal tunnel syndrome**
Timothy O Dada, Princess Margaret Hospital, Dominica

CIRCULAR ACETABULAR OSTEOTOMY AND CUP IMPLANTATION IN POSTDYSPLASTIC HIP ARTHRITIS

Jiri Stehlik

Ceske Budejovice Hospital, Czech Republic

The authors report their own concept of the use of total hip replacement for the treatment of postdysplastic arthritis of the hip joint. The type and degree of deformity, the size and thickness of the acetabular bone mass, all those factors determine the proper course of implantation. In indicated cases, osteotomy of the acetabulum can be used, where the implantation of the component does not weaken the bottom of the acetabulum and will provide sufficient bone tissue for future reimplantation. A quite exceptional situation is the implantation of articular replacement in cases of high luxation, which will require a strictly individual solution for each patient.

Objective: Radiological and clinical evaluation of patients who underwent acetabular osteotomy during total hip arthroplasty (THA) for postdysplastic hip arthritis.

Methods: Acetabulum osteotomy was used to allow correct cup position and firm holding of acetabular component of THA in patients with severe postdysplastic acetabular bone defects. We conducted a prospective study evaluating patients who underwent acetabular osteotomy during THA. We collected data on demography, previous surgeries, range of motion and Harris hip score. We arranged CT scans in all patients preoperatively and also postoperatively.

Results: We performed 22 THA surgeries with additional acetabular osteotomy. We evaluated 8 patients in average age of 54. Six patients already underwent orthopedic surgery for hip dysplasia. We used spherical press-fit cups in all cases. Average postoperative Harris hip score is 79.5. We had to re-operate only one hip at once after surgery because of cup malposition.

Conclusion: Acetabular osteotomy during THA is quite rare indicated part of THA surgery and must be precisely planned preoperatively using CT scans. This surgery may assure firm holding of acetabular component especially among patients with severe postdysplastic acetabular bone defects. After 10 years, we haven't any case of loosening of the acetabular implant.

Biography

Jiri Stehlik finished his studies at the Charles University Medical School in 1977. At the Orthopaedic Clinic of the Charles University in Prague he worked for 22 years, in recent years as deputy head of the clinic. In 1994 he reached the scientific rank of CSc. (PhD.) and in 1996 the title of ass. Professor. From 2002 until last year he was the Head of the Orthopaedic Department of the Hospital in České Budějovice, the centre of South Bohemia. In total, he lectured 154 lectures, 16 of which were abroad, published 47 articles in professional journals and was the author or co-author of 5 monographs. In 2003 he was awarded Zahradnicek Award, for the best publication in Acta Chir. Orthop. Traum. Bohemian Society for Orthopaedics and Traumatology.

stehlik.ortop@email.cz

LIFE AID COMBO TRIAL: RHEUMATOID ARTHRITIS

Avissar Koren A¹ and Styr B²

¹Acc Triza Granot Ltd, Israel

²The Hebrew University of Jerusalem, Israel

LifeAid Combo is a composition of vitamins and CBD developed for a wide array of autoimmune conditions, covering Guillain-Barré, multiple sclerosis, rheumatoid arthritis, Crohn, asthma, vasculitis and fibromyalgia. LifeAid Combo is a patient based initiative, created by a patient and tested by the patients via testimonials in the initial trial, advised by the expertise of Baruch Styr, pharmacist, Batya Kornboim, MD, and Igal Yusim research.

Methodology: All trial participants have consulted with their personal physicians was informed of the risks and is volunteered. After a thorough screening process, 112 volunteers qualified for the trial in the rheumatoid arthritis group. 107 participants completed the trial. No deaths or medical emergencies were found on follow up; all dropouts didn't keep up with the regimen for personal reasons. The participants were given a self-report questionnaire to fill out once a day regarding the effects of the LifeAid combo for 100 days over five life aspects: appetite, fatigue, movement, pain, sleep. Effectiveness of the treatment was assessed through simple line regression, over 20% is considered to be effective and less than 20% was considered to be not-effective.

| | |
|----------|-----|
| Appetite | 52% |
| Fatigue | 39% |
| Movement | 53% |
| Pain | 72% |
| Sleep | 27% |

Table 1:

Results: Initial trial results have shown the treatment to have the greatest effect on appetite, movement and pain for the rheumatoid arthritis group. The overall reduction in inflammation flaring up (0 episodes amongst the rheumatoid arthritis group during the trial) appears to be correlated to the pain reduction (72% of participant experienced a significant reduction in pain during the trial). This reduction in pain coincides with greater appetite (52% increase) (correlated to reduced pain) and easier movement (increased by 53%) (correlated to reduced inflammation). The treatment was found to be less effective (39%) in reducing fatigue and less effective (27%) in improving sleep quality.

Biography

Anat Avissar Koren, 36 years old, one of the lucky people with Multiple Sclerosis. My first MS attack happened mid-pregnancy with my daughter Ruth, and put me in a wheelchair. Upon recovering I started looking for a way to walk again. A wheelchair was unacceptable to me. There was nothing I wouldn't do for my baby Ruth. I was looking for information and medicine reviews online and at local communities, but found none. There was no one to explain to me which vitamins will I benefit from, what supplements and life factors are influential alongside the treatment, etc. I started studying and soon came up with the idea for a combo to prevent further attacks. To my surprise, after 2-3 months of trying, it worked. Later, the combo was tried by 1,349 more people in Europe for 3 months with amazing reported results.

founder@lifeaidcombo.com

ADAPTED REFLEX THERAPY IN MUSCULOSKELETAL PAIN STATES

Gunnel A L Berry

Cardiff Metropolitan University, UK

Adapted reflex therapy (AdRx) is a method of treatment used in acute and chronic pain states in context of musculoskeletal pain as seen in physiotherapy departments. AdRx has been developed by the author during two decades of working as a physiotherapy clinician and clinical pain specialist. The therapy is akin to orthodox reflexology but has a task specific aim to maintain continuous pressure on selected areas on the feet (or hands) which relate to spinal and neural components and compromise. AdRx offers a clinical rationale based on changes within neural plasticity and the effect on the autonomic nerve chain following injury. It is hypothesized that by touching nerve endings at the end of a limb, an action potential arises which accesses into the nervous system reaching higher centres affecting changes in quantity and quality of peptides. There is no predictable therapy that will facilitate changes in chronic pain, however, AdRx, has been shown to be transferable and offers a novel approach to musculo-skeletal pain

Biography

Gunnel A L Berry has qualified as a Chartered Physiotherapist in 1974 and completed a MSc in Advanced Physiotherapy in 1995. Adapted reflex therapy (AdRx) was developed from reflexology but with high specificity of application. The hypothesis is based on neurophysiological events after injury and compromise of neural plasticity. It is used to treat patients with variable musculo-skeletal pain and has been used in NHS and private practice. It is a transferable treatment where over 800 students have attended courses. It has been particularly useful in patients with whiplash injuries incurring hyperalgesia and hyperirritability. There are identified contraindications. She has presented papers and run courses in the UK and abroad in China, Australia, Greece and USA. A self-published book in 2017 describes case studies and clinical reasoning to treat musculo-skeletal pain including chronic pain. She has published part of books with NOVA publishers including the effect of whiplash injury.

gunnel.berry1@gmail.com

ORTHOPAEDIC APPLICATIONS OF SCINTIMETRIC CHARACTERIZATION BY DR V SIVA'S RETENTION RATIO

V Siva Subramaniyan and K Venkataramaniah

SSSIHL, India

The scintimetric characterization of the skeletal hot spots by the Dr V Siva's retention ratio had been reported in the differentiation of benign lesions from the metastatic ones in the case of carcinoma prostate primarily. The routine bone scan was done 4 hours after the intravenous injection of 20 to 25 mCi of Tc-99m MDP. In the case of those patients with detectable skeletal hotspots, the scan repeated 24 hours post-injection time next day. The maximum counts at the hot spot were calculated in the 4 hr and 24 hr scan images. The Dr V Siva's retention ratio was calculated by dividing the 4 hr counts by 24 hr counts. Israel's ratio obtained by the division of 24-hour lesion/non-lesion ratio with the 4 hr lesion/non-lesion ratio was decimal in nature. Our Dr V Siva's retention ratio was the full integer. Hence useful classification range was established. The Benign lesions had the value ≤ 5 . The degenerative and traumatic lesions had the intermediate range of 5-10. The malignant metastatic range was found to be 10 and above. The same had been found to be useful in the evaluation of causes of a delayed union of fractures. The utility of this method in the characterization and evaluation of the rheumatoid arthritis patients had also been documented. The addition of scintimetric characterization of fracture site by Dr V Siva's retention ratio along with the triple-phase bone scan findings helps in the proper identification of the underlying pathological process clearly had been documented. The scope and applicability of the scintimetric characterization by Dr V Siva's retention ratio in the evaluation of skeletal trauma, infections, sports related injuries and solitary skeletal neoplastic conditions will be discussed emphasizing the need for further exploration of this technique to confirm its authenticity

Biography

V Siva Subramaniyan is a Doctoral Research Scholar pursuing his research in the area of Scintimetric characterization in the University SSSIHL, Prasanthinilayam under the guidance of Prof K Venkataramaniah. He is a Senior Radiologist, Consultant Nuclear Medicine Physician and Imaging Specialist. He was awarded Dr Ashok Mukherjee Gold Medal for the best young Radiologist of the country in the year 1999 for his research work by the Indian Radiological and Imaging Association-IRIA. He was invited to present his research work as Poster in the IPET 2015 organized by IAEA at Vienna. He is pursuing his research and academic work. He has delivered more than 75 presentations, 9 thesis guidance and 10 publications to his credit.

drvsva@outlook.com

INVESTIGATIONS IN SEPTIC ARTHRITIS: HOW GOOD ARE THEY?

Paul Andrzejowski and Christopher Lodge

Bradford Royal Infirmary, UK

Introduction: Often perceived as the gold standard joint aspiration is performed for the exclusion of septic arthritis (overall mortality 11%). Management decisions are often made based upon initial clinical microscopy. We aim to compare initial microscopy results with definitive cultures and assess trends in patients' presenting inflammatory markers, microscopy and culture (CS) results. We also audited clinical process quality and handover documentation. Varying sensitivities and specificities given in literature.

Methods: All patients presenting with hot swollen native joints from Oct' 2017-Jul' 2018 at Bradford Royal Infirmary retrieved from handover lists. Retrospective study performed using electronic information systems. Standards based on 2007 joint national guidelines.

Results: Microbiology results: Total patients: 85. Positive Gram Stain (GS) and positive CS: 1, positive GS and negative MCS: 0, negative GS and positive CS: 11, negative GS and negative CS: 73. GS Sensitivity: 0.08, Specificity: 0.91, Positive predictive value (PPV): 1, Negative predictive value (NPV): 0.87. Pus cells 3+: sensitivity 0.58, specificity 0.86, PPV 0.19, NPV 0.89. WCC > 12: Sensitivity 0.58, specificity 0.86, PPV 0.19, NPV 0.90. CRP>10: Sensitivity 1, specificity 0.50, PPV 0.16, NPV 1.

Culture: *Staphylococcus aureus* 45%, *Streptococcus G* 18%, Others: 37%. Process audit: WCC taken: 100%, CRP taken: 99%, Urate taken: 62%, Synovial fluid taken before Abx: 97%, Aspirate taken: 100%, MCS Obtained: 100%. Handover Documentation audit: WCC documented: 93%, CRP documented: 94%, Urate documented: 30%, Complete microscopy result documented: 76%, 48 hr date for MCS documented: 0%, 5 day MCS date documented: 11%.

Discussion: Results demonstrate low sensitivity of initial positive gram stain, WCC and CRP to final positive MCS. Possible predictive value of 3+ pus cells. We suggest a greater emphasis should be on clinical presentation and examination findings than GS result when making clinical decisions. Larger study needed to confirm. We also designed an improved handover documentation proforma.

Biography

Paul Andrzejowski completed his Bachelor of Medical Science (Hons) in 2011 and Bachelor of Medicine and Surgery degree in 2013 from the University of Nottingham, UK. He has recently passed MRCS Membership exams to the Royal College of Surgeons of Edinburgh. He has completed his core surgical training programme in Yorkshire with a special interest in Trauma and Orthopaedics, and is currently working as a Research Fellow in Trauma and Orthopaedics at the Leeds General Infirmary.

paul.andrzejowski@nhs.net

CONSERVATIVE APPROACH OF AYURVEDIC INTEGRATED TREATMENT FOR JOINT AND SOFT TISSUE INJURIES: FASTER RECOVERY AND A BETTER OPTION COMPARED TO SURGERY

Arshad P¹ and Sabna NK²

¹Daisman hospital, India

²Daisman hospital, India

Aim: Study aimed for the management of soft tissue injuries like, ligament injuries, capsule injuries, articular cartilage injuries, meniscal injuries which are quiet common in sports and daily clinical practise in which surgery may be the option could be easily managed by conservative treatment.

Introduction: Injury to joints may lead to stiffness and loss of function and sometimes need long period rehabilitation, and often results are not promising. Both active movement and passive stretching will be painful and limited. Healing occurs by fibrosis and adhesion and movement will be impaired. Effective and fast relief result could be provided by non-surgical advanced integrated treatment by conservative treatment approach of traditional method in modern platform. The main aim of the treatment is to relieve pain and restoration of functions to enable back to normal activity faster.

Materials & Method: Clinical research over 15 years showed the efficacy of mobilisation bandage and range enhanced immobilisation techniques (REIT) shows faster healing, better joint function, prevent stiffness and adhesion. Frequent re-banding, early mobilization and weight bearing prevents the possibility of muscle wasting and promote neuromuscular control over the affected joint and found helpful for delayed union and non-union. Stream lined controlled flow of medicated oil at 40-45 °C on the joints works much better than ultrasound therapy and some oil can be used for ultrasound medium with gel for pain relief. Efficacy of herbal combination for external and internal use has tremendously reduced risk factors like inflammation, myositis, osteodystrophy, joint contracture and compartment syndrome.

Result: Advanced innovative treatment modalities of Ayurveda (Indian system of medicine) combined with physiotherapy modalities inventory technique of intra articular needle stimulation (IANS), intra muscular needle stimulation (IMNS), strengthening and stretching exercises, sports massages using medicated herbal oils found to be very effective in various orthopaedic conditions.

Biography

Arshad P has completed his Graduation in Ayurvedic Medicine and Surgery from Kottakkal; PG Diploma in Sports Medicine at Apollo hospital. He has more than 18 years of clinical experience in Sports Medicine, Injury Management and Rehabilitation. He has treated more than 40,000 cases of sports injuries including international and national level athletes including African Asian footballers and recovered remarkably. He is the first and only one person in India practicing integrated treatment approach of Ayurveda, physiotherapy in management and rehab of acute and chronic sports injuries. He had presented many papers in International sports medicine Congress like World sports medicine congress Rome Italy 2012, presented paper on International Sports Medicine Conference Barcelona, Spain October 2018, Asian Federation of Sports Medicine Congress 2009. He has conducted more than 170 seminars and workshops all over India and abroad. He has presented paper at International congress on Renaissance in Sports 2017, World Ayurveda Congress 2001, 2006, 2008 and 2010.

ayursports@gmail.com

NATIVE KNEE SEPTIC ARTHRITIS: SENSITIVITY AND SPECIFICITY OF INVESTIGATIONS

Paul Andrzejowski

Bradford Royal Infirmary, UK

Introduction: One of the most common investigations in orthopaedics is aspiration of the native hot swollen knee for septic arthritis: patients often discharged if gram stain is negative. This is a serious condition: mortality of 4-42% is seen. Literature demonstrates wide variation in positive sample rates. We aimed to compare results of initial microscopy and inflammatory markers with definitive culture and sensitivities (CS). We also assessed quality of departmental handover documentation and process.

Methods: We identified all patients from Oct' 2017-Jul' 2018 from handover lists at our orthopaedic unit presenting with hot swollen native knee joints. We used clinical information systems to retrospectively collect data; audited based on 2007 joint national UK guidelines.

Results: 1) Microbiology: total patients: 62, negative Gram stain (GS) and negative CS: 55, negative GS and positive CS: 7, positive GS and positive CS: 0, positive GS and negative MCS: 0. Culture: Staphylococcus aureus 50%, Strep G 16%, others: 16%. GS Sensitivity: 0, Specificity: 1, positive predictive value (PPV): 0, negative predictive value (NPV): 0.98. Pus cells 3+: sensitivity 1, specificity 0.83, PPV 0.17, NPV 0.92. WCC>12: sensitivity 0.57, specificity 0.83, PPV 0.17, NPV 0.92. CRP>0: sensitivity 1, specificity 0.41, PPV 0.12, NPV 1.

Documentation audit: WCC documented: 88%, CRP documented: 90%, urate documented: 24%, complete microscopy result documented: 59%, 48 hr date for MCS documented: 0%, 5 day MCS date documented: 18%.

Process audit: WCC taken: 100%, CRP taken: 99%, urate taken: 64%, synovial fluid taken before Abx: 97%, aspirate taken: 100%, MCS obtained: 100%.

Discussion: We showed low sensitivity of blood tests and GS results in predicting positive septic arthritis, with some usefulness of pus cells. This emphasises importance of clinical history and examination in informing initial management decisions. A bigger investigation is warranted. To improve handover process, we designed a new proforma.

Biography

Paul Andrzejowski completed his Bachelor of Medical Science (Hons) in 2011 and Bachelor of Medicine and Surgery degree in 2013 from the University of Nottingham, UK. He has recently passed MRCS Membership exams to the Royal College of Surgeons of Edinburgh. He has completed his core surgical training programme in Yorkshire with a special interest in Trauma and Orthopaedics, and is currently working as a Research Fellow in Trauma and Orthopaedics at the Leeds General Infirmary.

paul.andrzejowski@nhs.net

RED FLAG IN THE PHYSIOTHERAPY MANAGEMENT OF BILATERAL CARPAL TUNNEL SYNDROME

Timothy O Dada

Princess Margaret Hospital, Dominica

Aim: The aim of this paper is to sensitize clinician (physiotherapists, orthopaedists and orthopaedic surgeons) about other condition that can closely mimic carpal tunnel syndrome and to encourage team work approach using case study of patients treated at the Department of Physiotherapy, Princess Margaret Hospital.

Method: This paper focuses specifically on three different cases of diagnosed carpal tunnel syndrome referred from orthopaedic surgeons. The first case was referred for post surgical physiotherapy management while the other two cases were referred for pre-operative physiotherapy management. The screening assessment includes history taking, physical examinations, phallen's test and carpal tunnel compression test.

Result: The screening assessment revealed condition other than carpal tunnel syndrome (CTS) must have been responsible for the neurological symptoms they presented (which mimic CTS). In this paper, due to specific intervention which alleviates their symptoms, vitamin B12 deficiency was suspected to be the cause of this carpal tunnel mimicked symptoms. The post-operative patient was managed symptomatically but the initial neurological symptoms persist. The other two clients were successfully screened. Vitamin B12 was recommended for the three clients and their symptoms subsequently subsided.

Conclusion: Bilateral presentation of neurological symptoms that mimic carpal tunnel syndrome can be mistaken for CTS and managed as CTS. Sometimes screening for vitamin B12 deficiency can be helpful in ruling out carpal tunnel syndrome.

Recommendations: It is therefore recommended that there should be proper screening of patients that are presented with bilateral neurological symptoms that mimic carpal tunnel syndrome so as to avoid ineffective utilization of procedures and intervention.

Biography

Timothy O Dada has completed his Clinical Doctorate Degree in Physical Therapy from University of Medical Science Arizona. He completed his professional competence course at ATSTILL School of Health Science, Arizona. He is presently pursuing a Master degree in Health System Administration at Rochester Institute of Technology, New York and a Law degree from University of London. He is the Head of Physiotherapy Department, Princess Margaret Hospital, the National Hospital of Commonwealth of Dominica.

dadatisaoko@yahoo.com

DAY 1

Young Research Forum



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COMPARISON BETWEEN CROSSING WIRES VERSUS TWO LATERAL WIRES IN THE MANAGEMENT OF DISPLACED SUPRACONDYLAR FRACTURE OF THE HUMERUS IN CHILDREN

M Ahmed Hassan¹, A AbdelKafy² and H AbdelSadek Othman²

¹Ministry of Health, Egypt

²Suez Canal University, Egypt

Background: Closed reduction and percutaneous pin fixation is considered standard management for displaced supracondylar fractures of the humerus in children. However, controversy exists regarding whether to use an isolated lateral entry or a crossed medial and lateral pinning technique.

Objectives: To compare between the crossing wires fixation and two lateral wires in management of the supracondylar fracture of the humerus in children.

Patients & Methods: Study population included all children with supracondylar humerus fractures attending the emergency department in Suez Canal University Hospitals and Ismailia General Hospitals in the period from Jan' 2016 to Sep' 2016.

Results: The adequacy of the reduction postoperatively (stability of fixation) was assessed according to Skagg's criteria depending on changes in Bauman's angle. In crossing wires method, 85.8% of patients showed less than 6° changes. However, in the lateral wires method, 42.9% of patients showed less than 6° changes. There were significant difference between two groups (P value=0.0353). There was no ulnar nerve injury in both groups. Clinically, there were no significant differences between the two groups (P value=0.217).

Conclusion: The crossed pin configuration method provides better stability than the lateral pin configuration method in management of supracondylar fracture of the humerus in children and the risk of ulnar nerve injury can be avoided by making a small incision over the medial epicondyle for placement of the medial wire in all cases.

Biography

Mohamed Ahmed Hassan has completed his Masters' Degree in Orthopaedic Surgery from Suez Canal University. He is a Specialist of Orthopaedic Surgery at the Ministry of Health. He has spent 2 years of working as a Visitor Resident in Orthopaedic Department, Suez Canal University hospitals and 3 years as Orthopaedic Resident at Ismailia General Hospitals, Ministry of Health, Egypt. He has attended 30 training courses in basic orthopaedic principles and different subspecialties of orthopaedic surgery. He is a Bronze Member of AO foundation.

doc.m.a.h89@gmail.com

OSTEOPOROSIS PREVENTION AND TREATMENT

M Bastani pur moghaddam

Bahonar School, Iran

Osteoporosis is one of the most common and serious problems around the world. It is a chronic and advanced disease that correlates with bone loss (BMD) and bone marrow microscopic deviation. Gene therapy is a new method for the treatment of osteoporosis, and its main function is to restore the interaction of metabolism. It has now been widely accepted that osteoporosis is an important disorder caused by interactions between the environment and genes that has a negative effect on the bone mass and other aspects of bone strength and fracture risk. Genetic factors in the prevention and management of osteoporosis treatment. It can be effective and can become a new therapeutic.

Introduction: The substance (hemotenici) has received its name from hemo and genetics And this is an exclusive name and has not yet been registered on the website. The substance called (hemotenici) has a specific gene that causes(BMD)bone volume, The)hemotenici(material is available on the nail plate, In normal form (ie, people who do not have osteoporosis or have low bone density), The genetic material is transmitted from the nail to the bone tissue. As a result, humans will have osteoporosis and bone density. But for the reasons mentioned, the connection between the nail and the bone has been interrupted (aging, lack of proper nutrition, menopause in women, environmental conditions and residence ...) At that time, our expertise will begin, To heal or prevent osteoporosis, you must first remove the hemotenisi fluid from the nail, then inject it into the main portion and bone media to repair and repair the bone structure. To prevent 0.5 or 1 cc per year and to treat 1.5 or 2 cc depending on the stage of the disease is enough.

Biography

Mahdi Bastani pur moghaddam is 16 years old. He is studying in Bahonar School, Iran. Since 2 years ago, he began to study the relationship between nail building and osteoporosis.

Mahdi.pur.moghaddam@gmail.com

DAY 2

Scientific Tracks & Abstracts



European Conference on

Orthopedics and Osteoporosis

November 29-30, 2018 Amsterdam, Netherlands

DAY 2

November 30, 2018

Sessions

Arthroplasty | Arthroscopy | Replacements of Joint/Knee/Hip | Musculoskeletal disorder

Session Chair

V Siva Subramaniyan
SSSIHL, India

Session Co-Chair

Izak Daizade
UNFO Medical center, Israel

Session Introduction

Title: Scintimetric characterization of skeletal hot spots in Paget's disease

V Siva Subramaniyan, SSSIHL, India

Title: Pectoralis major muscle tear

Marcio Alberto de Lima Cavalcanti, Instituto de Ortopedia e Traumatologia de Campina Grande (IOT-CG), Brazil

Title: LifeAid Combo trial – Fibromyalgia, Multiple Sclerosis & Guillain-Barré

Anat Avissar Koren, Life Aid Combo, NetherLand

Title: Adhesive Capsulitis

Marcio Alberto de Lima Cavalcanti, Instituto de Ortopedia e Traumatologia de Campina Grande (IOT-CG), Brazil

Title: From 3-D medical images to customized patient specific implant and guides

Ash Harkara, Volmo Ltd, UK

Title: Distal clavicle resection

Marcio Alberto de Lima Cavalcanti, Instituto de Ortopedia e Traumatologia de Campina Grande (IOT-CG), Brazil

Title: Back pain, stress and inflammation: Psychoneuroendocrine immunological interpretation and new proposals in rehabilitation, the MAIT method

Paolo Flocco, MAIT, Italy

SCINTIMETRIC CHARACTERIZATION OF SKELETAL HOT SPOTS IN PAGET'S DISEASE

V Siva Subramaniyan and K V enkataramaniah

SSSIHL, India

The bone scan findings of the Paget's disease are well established and documented and considered to be the hall mark findings of the disease. It usually presents as asymmetrical, diffuse and dense skeletal hot spots with irregular margins. It is characterized by the typical flame appearance of the marrow involvement. The earliest attempt to characterize the hot spots by means of the triple phase bone scan is by dynamic curve analysis. That is done by calculating the blood pool ratio and the skeletal ratio. No useful clinical application could be derived due to the cumbersome process. Hence in five cases of Paget's disease that encountered in our case collection the scintimetric characterization of the skeletal hot spots by Dr V Siva's retention ratio is applied. The triple phase bone scan is followed by 24 hr repeat whole body bone scan from the time of radiopharmaceutical injection. The maximum counts at the focal hotspots in 4 hr and 24 hr images are obtained using region ratio protocol and tabulated. The Dr V Siva's retention ratio is calculated by dividing the 4 hr counts by 24 counts. Fig.1 shows the sample image of scintimetric characterization in a case of Paget's disease. All the cases showed plethora of values ranging from 1 to 30 defying the cut off values of benign, degenerative and neoplastic categories. Thus the Paget's disease is a water loo for the Dr V Siva's retention ratio and the cause for it is elaborated.

Biography

V Siva Subramaniyan is a Doctoral Research Scholar pursuing his research in the area of Scintimetric characterization in the University SSSIHL, Prasanthinilayam under the guidance of Prof K Venkataramaniah. He is a Senior Radiologist, Consultant Nuclear Medicine Physician and Imaging Specialist. He was awarded Dr Ashok Mukherjee Gold Medal for the best young Radiologist of the country in the year 1999 for his research work by the Indian Radiological and Imaging Association-IRIA. He was invited to present his research work as poster in the IPET 2015 organized by IAEA at Vienna. He is pursuing his research and academic work. He has delivered more than 75 presentations, 9 thesis guidance and 10 publications to his credit.

drvsiva@outlook.com

PECTORALIS MAJOR MUSCLE TEAR

Marcio Alberto de Lima Cavalcanti¹, Igel de Souza Aquino² and Daniel Brasil Araújo Nicolletti³

¹Instituto de Ortopedia e Traumatologia de Campina Grande-PB (IOT-CG), Brazil

²Hospital do Servidor Público Estadual, Brazil

³Hospital Getúlio Vargas, Brazil

More cases of pectoralis major muscle (PMM) tear in its insertion have been reported lately, and its increasing incidence is due partly to a higher rate of exercising and lack of professional supervision especially during bodybuilding activities. We are presenting two cases treated surgically, one of them being an acute PPM tear and the other a chronic one. In any case, early diagnosis is essential because, similarly to Achilles tendon ruptures, chronic tears are more likely to complications and difficulty during surgical treatment. Both cases were in young male amateur athletes (27 and 29 years old) who felt severe shoulder pain during bench press. The younger patient had the acute tear diagnosed 2 months after the causal event, and the other patient only 2 years and 3 months of the event. They were presented with paresthesia, edema and hematoma in the anterior and medial aspect of the thorax extending to the proximal areas of the arm, which are typical findings in PMM rupture. They had no loss in range of motion although reduced strength for adduction and internal rotation was present, and in both cases the PMM tear was confirmed with a shoulder MRI. For the surgical treatment we used anchors positioned in its insertion in the proximal humerus under the subscapularis muscle, anterior and laterally to the biceps brachii tendon. During the procedure inventory, the PPM was significantly retracted but its anatomical reinsertion was successful with minimum loss of superficial muscle tissue. Physiotherapy rehabilitation started six weeks after surgery and after 5 months the patients had returned to their physical activities. PMM tears are uncommon injuries and its early diagnosis is very important, for precocious intervention will bring better results for the patients. Regarding acute tears, surgical treatment brings superior results with better strength recovery when compared to conservative treatments

Biography

Marcio Alberto de Lima Cavalcanti (Marcio Cavalcanti) has graduated in Medical School at Faculdade de Medicina do Recife (UFPE) in 2003. His Residency Program was at Hospital Regional do Agreste with his specialty in Shoulder and Elbow Surgery at Instituto de Ortopedia e Traumatologia – Passo Fundo/RS. He also was Staff of the Residency Program in Orthopedics and Traumatology (Shoulder and Elbow surgery) at Hospital Regional do Agreste. He has presented several (about 18) of his publications both in national and international Congress as well as participating in courses and surgical training at Ecole de Chirurgie du Fer a Molin (Paris/FRA) and Presbyterian Hospital of Columbia University (New York/USA).

marcioacavalcanti@hotmail.com

November 29-30, 2018
Amsterdam, NetherlandsAvissar Koren A et al., J Clin Exp Orthop 2018, Volume: 4
DOI: 10.4172/2471-8416-C1-005**LIFE AID COMBO TRIAL – FIBROMYALGIA, MULTIPLE SCLEROSIS & GUILLAIN-BARRÉ****Avissar Koren A¹ and Styr B²**¹Acc Triza Granot Ltd, Israel²The Hebrew University of Jerusalem, Israel

LifeAid Combo is a composition of vitamins and CBD developed for a wide array of autoimmune conditions, covering Guillain-Barré, Multiple Sclerosis, Rheumatoid Arthritis, Crohn, Asthma, Vasculitis and Fibromyalgia. LifeAid Combo is a patient based initiative, created by a patient and tested by the patients via testimonials in the Initial Trial, advised by the expertise of Baruch Styr, Pharmacist, Batya Kornboim, MD, and Igal Yusim Research. All trial participants have consulted with their personal physicians, were informed of the risks and volunteered. After a thorough screening process 320 volunteers qualified for the trial in the Fibromyalgia group, and 255 volunteers qualified for the trial in the Guillain-Barré + MS group. 311 participants finished the trial in the Fibromyalgia group, 248 participants finished the trial in the Guillain-Barré + MS group. No deaths or medical emergencies were found on follow up, all dropouts didn't keep up with the regimen for personal reasons. The participants were given a self-report questionnaire to fill out once a day regarding the effects of the LifeAid Combo for 100 days over five Life Aspects: Appetite, Fatigue, Movement, Pain, Sleep. Effectiveness of the treatment was assessed through Simple Line Regression, over 20% is considered to be effective, under 20% was considered to be not-effective.

Results**Guillain-Barré + MS group**

| | Effective |
|----------|-----------|
| Appetite | 68% |
| Fatigue | 41% |
| Movement | 65% |
| Pain | 57% |
| Sleep | 55% |

Inflammation flaring up during the trial: 0 episodes

Fibromyalgia group

| Effective | |
|-----------|-----|
| Appetite | 68% |
| Fatigue | 37% |
| Movement | 84% |
| Pain | 57% |
| Sleep | 55% |

Results Explained

Initial trial results have shown the treatment to have the greatest effect on Appetite, Movement and Pain for the Guillain-Barré + MS group. The overall reduction in inflammation flaring up (0 episodes amongst the Guillain-Barré + MS group during the

trial) appears to be correlated to the an increase in Appetite (68% of participant experienced a significant increase in Appetite during the trial). This increase in Appetite coincides with a reduction in Pain (found to be correlated to increased Appetite) and easier Movement (65% of participant experienced a significant increase in Movement, found to be correlated to reduced inflammation). The treatment was found to be less effective in reducing Fatigue and less effective in improving Sleep quality. Initial trial results have shown the treatment to have the greatest effect on Appetite, Movement and Pain for the Fibromyalgia group. 84% of participant experienced a significant increase in Movement during the trial. This increase in Movement coincides with greater Appetite (correlated to increased Movement) and a reduction in Pain (57% of participant experienced a significant reduction in Pain). The treatment was found to be less effective in reducing Fatigue and less effective in improving Sleep quality.

Biography

Anat Avissar Koren, 36 years old, one of the lucky people with Multiple Sclerosis. My first MS attack happened mid-pregnancy with my daughter Ruth, and put me in a wheelchair. Upon recovering I started looking for a way to walk again. A wheelchair was unacceptable to me. There was nothing I wouldn't do for my baby Ruth. I was looking for information and medicine reviews online and at local communities, but found none. There was no one to explain to me which vitamins will I benefit from, what supplements and life factors are influential alongside the treatment, etc. I started studying and soon came up with the idea for a combo to prevent further attacks. To my surprise, after 2-3 months of trying, it worked. Later, the combo was tried by 1,349 more people in Europe for 3 months with amazing reported results.

founder@lifeaidcombo.com

ADHESIVE CAPSULITIS

Marcio Alberto de Lima Cavalcanti¹, Igel de Souza Aquino² and Daniel Brasil Araújo Nicolletti³

¹Instituto de Ortopedia e Traumatologia de Campina Grande-PB (IOT-CG), Brazil

²Hospital do Servidor Público Estadual, Brazil

³Hospital Getúlio Vargas, Brazil

More cases of pectoralis major muscle (PMM) tear in its insertion have been reported lately, and its increasing incidence is due partly to a higher rate of exercising and lack of professional supervision especially during bodybuilding activities. We are presenting two cases treated surgically, one of them being an acute PPM tear and the other a chronic one. In any case, early diagnosis is essential because, similarly to Achilles tendon ruptures, chronic tears are more likely to complications and difficulty during surgical treatment. Both cases were in young male amateur athletes (27 and 29 years old) who felt severe shoulder pain during bench press. The younger patient had the acute tear diagnosed 2 months after the causal event, and the other patient only 2 years and 3 months of the event. They were presented with paresthesia, edema and hematoma in the anterior and medial aspect of the thorax extending to the proximal areas of the arm, which are typical findings in PMM rupture. They had no loss in range of motion although reduced strength for adduction and internal rotation was present, and in both cases the PMM tear was confirmed with a shoulder MRI. For the surgical treatment we used anchors positioned in its insertion in the proximal humerus under the subscapularis muscle, anterior and laterally to the biceps brachii tendon. During the procedure inventory, the PPM was significantly retracted but its anatomical reinsertion was successful with minimum loss of superficial muscle tissue. Physiotherapy rehabilitation started six weeks after surgery and after 5 months the patients had returned to their physical activities. PMM tears are uncommon injuries and its early diagnosis is very important, for precocious intervention will bring better results for the patients. Regarding acute tears, surgical treatment brings superior results with better strength recovery when compared to conservative treatments

Biography

Marcio Alberto de Lima Cavalcanti (Marcio Cavalcanti) has graduated in Medical School at Faculdade de Medicina do Recife (UFPE) in 2003. His Residency Program was at Hospital Regional do Agreste with his specialty in Shoulder and Elbow Surgery at Instituto de Ortopedia e Traumatologia – Passo Fundo/RS. He also was Staff of the Residency Program in Orthopedics and Traumatology (Shoulder and Elbow surgery) at Hospital Regional do Agreste. He has presented several (about 18) of his publications both in national and international Congress as well as participating in courses and surgical training at Ecole de Chirurgie du Fer a Molin (Paris/FRA) and Presbyterian Hospital of Columbia University (New York/USA)

marcioacavalcanti@hotmail.com

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FROM 3-D MEDICAL IMAGES TO CUSTOMIZED PATIENT SPECIFIC IMPLANT AND GUIDES

Ash Harkara

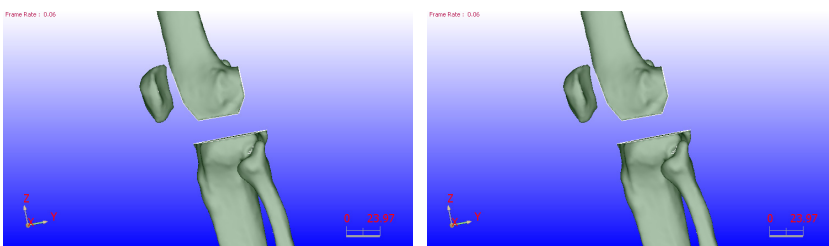
Volmo Ltd, UK

Patient specific technology is slowly gaining popularity and clinical adoption. This presentation will cover the process of 3-D image based modeling and simulation of implants using Volmo proprietary software ImageSim. We will show various case studies of patient specific designs of implants including knee implant. ImageSim has number of features to smooth and filter the data; Filtered data was exported as STL model of full knee. The full knee STL model was then imported into TSV tools available in ImageSim for CAD functionality. Resection of femur and tibia was done in TSV environment. E-sectioned knee model was imported in solid works software and new components for femur, tibia and polymer insert were designed and exported back into TSV. All the new components and original resected bones were assembled and positioned. New assembled model were remeshed and then volume meshed. Contacts, material properties and boundary conditions were assigned before final model was exported into Ansys for finite element analysis. Static analysis for a full gait cycle was carried out in Ansys and the results obtained will be presented in the conference

Biography

Ash Harkara has completed his PhD from University Pune and Postdoctoral Studies from school of EE, University of Leeds, UK. He is a Founder, Director of Volmo Ltd. He has presented papers in number of conferences and published papers in reputed journals.

aharkara@yahoo.com



DISTAL CLAVICULE RESSECTION

Marcio Alberto de Lima Cavalcanti¹, Igel de Souza Aquino² and Daniel Brasil Araújo Nicolletti³

¹Instituto de Ortopedia e Traumatologia de Campina Grande-PB (IOT-CG), Brazil

²Hospital do Servidor Público Estadual, Brazil

³Hospital Getúlio Vargas, Brazil

The objective of this work was to compare the results of submitted patients the surgical treatment for osteoarthrosis to acromio-clavicular, being comparative the results between the patients treated with Shoulder arthroscopy and for opened surgery. In the total 50 patients, being 25 for each group had been followed. We find an average UCLA of 31.9, being resulted excellent and good 88% of in group 1 and 96% in group 2, with average of 33.3. The scale of Constant also presented resulted similar, in the group 1 average of 60.3 and in group 2 of 62.1. When carried through the analysis statistics for the method of Wilcoxon comparing itself the results between groups 1 and 2 we met a $p < 0.05$, having significance statistics; the accompaniment time also was evaluated with the significant result statistical. We conclude that both techniques reach good results, when carried through correctly. However, in this first phase of the work, different of current literature, the results of the called surgeries opened had gotten better resulted, this can be credited to the biggest time of accompaniment of the patients of group 2 (58 months on average) when compared with the one of group 1 (34 months), to small number n of patients or to the curve of learning for accomplishment of the arthroscopy, considered method innovator and with only 3 decades of introduction in armamentarium surgical of the surgery of the Shoulder.

Biography

Marcio Alberto de Lima Cavalcanti (Marcio Cavalcanti) has graduated in Medical School at Faculdade de Medicina do Recife (UFPE) in 2003. His Residency Program was at Hospital Regional do Agreste with his specialty in Shoulder and Elbow Surgery at Instituto de Ortopedia e Traumatologia – Passo Fundo/RS. He also was Staff of the Residency Program in Orthopedics and Traumatology (Shoulder and Elbow surgery) at Hospital Regional do Agreste. He has presented several (about 18) of his publications both in national and international Congress as well as participating in courses and surgical training at Ecole de Chirurgie du Fer a Molin (Paris/FRA) and Presbyterian Hospital of Columbia University (New York/USA).

marcioacavalcanti@hotmail.com

BACK PAIN, STRESS AND INFLAMMATION: PSYCHONEUROENDOCRINE IMMUNOLOGICAL INTERPRETATION AND NEW PROPOSALS IN REHABILITATION, THE MAIT METHOD

Paolo Flocco

MAIT, Italy

It is easy to understand from the statistics, back pain is an extremely common disorder (about 75-80% of the population suffers or has suffered from it) and the trend seems to be increasing. This leads to a number of societal challenges: increased days off from work; increased expenditure on health care; increased consumption of drugs; increased per capita expenditure and increased risk of side-effects. It is clear that the money spent on medicines has increased steadily over the last 25 years and NSAIDs play a major role in this. Please note that at least 15% of people taking NSAIDs exceed the maximum permissible dose and are at risk of serious side effects. Analyzing ISTAT statistics on Italian health research, 39% of those interviewed had recourse to drugs in the last two days before the interviews. The overweight population is steadily increasing, including the pediatric age. The prevalence of diabetes, osteoporosis, chronic and autoimmune diseases is also increasing. Population is more sedentary. Unfortunately, this is a European trend. Parallel to worsen health condition, 16% of European employees feel stressed every day, according to data from a recent study by ADP, the workforce view in Europe 2018. The situation becomes even worse if we consider female workers or workers in the health sector, reaching peaks of 20%. Could there be a correlation between these data? We believe so, because stress, physical, behavioural or psychic, produces inflammation, giving rise to possible symptoms, even structural. For this reason, we believe that it is useful to propose complementary approaches to intervention.

Biography

Paolo Flocco has completed Graduation in Physiotherapy from the University of Rome La Sapienza with the highest marks. After various work experiences and different courses, he enrolled at CERDO, one of the most prestigious schools of osteopathy in Italy and after six years of training, he became Osteopathologist. For several years, he has been working as a professional and dealing with study and research. He writes in national journals and blogs of scientific popularization. He is also an international Lecturer and Member of the scientific committee of a Post-graduate training company for physiotherapists in Italy. He is the Founder of MAIT, a new approach to manual medicine.

paolo.flocco@gmail.com

DAY 2

Young Research Forum



European Conference on

Orthopedics and Osteoporosis

November 29-30, 2018 Amsterdam, Netherlands

CHORDOMA TUMOR TREATMENT

M Bastani Pur Moghaddam

Bahonar School, Iran

Chordoma is a cancer that grows in the spine and is very rare. Only one in every one million people suffers from it. Chordoma can be formed anywhere from the waist and neck and usually grow slowly. Since these tumors are close to important areas such as the brain and the ducts, they should be treated with great care.

Types of Chordoma: Are there different types of chordoma? There are four subtypes of chordoma, which are classified based on how they look under a microscope: Ordinary (or classical) Chordoma is the most common form of Chordoma. This is a unique cell type; poorly differentiated chordoma is a recently identified subtype. It can be more aggressive and faster growing than conventional chordoma, and is more common in pediatric and young adult patients, as well as in skull base and cervical patients. Pathologists can diagnose poorly differentiated chordoma by testing a tumor sample for deletion of a gene called INI-1. All poorly differentiated chordomas have loss of the INI-1 gene; Dedifferentiated chordoma is more aggressive and generally grows faster than the other types of chordoma, and is more likely to metastasize than conventional chordoma. It can also have loss of the INI-1 gene, but this is not common. This type of chordoma is rare, occurring in only about 5 percent of patients, and is more common in pediatric patients; Chondroid chordoma is a term more commonly used in the past when it was difficult to distinguish conventional chordoma from chondrosarcoma. This is no longer a problem because brachyury is expressed in nearly all conventional chordomas, making them easier to distinguish from cartilaginous tumors like chondrosarcoma that do not express brachyury. There is no evidence that chordomas with a chondroid appearance behave differently than conventional types that do not have this appearance.

If the chordoma spreads to other parts of the body: The most common places that spread to them are lungs, liver, bones, or lymph nodes. What causes chordoma? Chordoma tumors develop from cells of a tissue called the notochord, which is a structure in an embryo that helps in the development of the spine. The notochord disappears when the fetus is about 8 weeks old, but some notochord cells remain behind in the bones of the spine and skull base. Very rarely, these cells turn into cancer called chordoma. What causes notochord cells to become cancerous in some people is still not fully known. The vast majority of chordomas occur at random and not as a direct result of an inherited genetic trait; however, there are several genetic factors associated with chordoma. For example, more than 95 percent of individuals with chordoma have a single-letter variation, called a SNP ("snip"), in the DNA sequence of a gene called brachyury. This SNP causes an increase in the risk of developing chordoma.

Today, the disease has three therapies: Radiotherapy; Chemotherapy and Chordoma surgery.

Tumor symptoms at the base of the skull: Severe headaches; Pain in the face; Visual disturbances, such as drowsiness, difficulty concentrating your eyes or eye movements; Paralysis of the facial nerves that affects the swallowing, speech and movement of the eye, nausea and tiredness.

Tumor symptoms in the main spine: the pain; swelling; there is a tumor in the neck; respiratory obstruction; neck pain; hoarseness; problem in swallowing.

General signs: the pain; weakness; lack of sense.

Biography

Mahdi Bastani pur moghaddam The student is 16 years old. Since 2 years ago, he began to study the relationship between nail building and osteoporosis. Interested in research: Prevention and treatment of osteoporosis.

Mahdi.pur.moghaddam@gmail.com

VIDEO PRESENTATION

Abstracts



European Conference on

Orthopedics and Osteoporosis

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ARTHROSCOPIC DISTAL CLAVICLE EXCISION IN AC ARTHRITIS

Hazem El Haddad, A Rizk and A Fouad

Cairo University, Egypt

A cromioclavicular joint osteoarthritis often occur and easily missed. We reported excellent results with arthroscopic resection of the distal end of the clavicle in patients with this disorder. Arthroscopic treatment of this disorder produces more favourable results than open procedures. We report 20 patients who were not responding to conservative management and were treated with direct arthroscopic distal clavicle excision. All patients gained good postoperative outcome in terms of pain score, function and strength improvement assessed objectively with Constant score and ASES score.

Biography

Hazem El Haddad has completed his MD at the age of 33 years from Cairo University and postdoctoral studies from Kasr Alainy School of Medicine. He is the Former Dean of Turkish Andolu Faculty of Medicine. He has published more than 3 papers in reputed journals.

Hazem_elhaddad2008@yahoo.com

ANKLE LIGAMENT RECONSTRUCTION USING A RAPID BROSTROM REHABILITATION PROTOCOL

Gordon L Slater¹, Robert A McPherson² and Kristy Hogg³

¹Private Practice Sydney and Albury, Australia

²Stable Ortho, Melbourne, Australia

³Enhance Physiotherapy Albury-Wodonga, Australia

Patients following ankle reconstructions are a large population in specialist orthopaedic and physiotherapy practices. It is therefore important to consider how recovery can be optimised and accelerated. We have used the same protocol from Dr. Marty O'Malley for 20 years. This surgical methodology has been modified to produce a protocol that allows accelerated rehabilitation. Our modified protocol allows for weight-bearing immediately using a post-operative ROM boot. Return to function has been halved and recovery speed is increased. However, there has been an increase in those with some co-commitment pathologies requiring re-operation and therefore risk needs to be assessed in certain cases. We propose that this modified protocol is an improved approach to allow for faster return to activities

Biography

Gordon Slater obtained an undergraduate qualification at the University of New South Wales in Sydney, Australia and is a Fellow of the Royal Australian College of Surgeons and the Australian Orthopaedic Society. He undertook advanced study in Foot and Ankle Surgery at the Hospital for Special Surgery, New York in 1997. His many publications and extensive clinical experience in foot and ankle surgery have provided opportunities as both presenter at plenary lectures and chairman of numerous international meetings. He first published in 1993 on ground breaking techniques using ceramic alumina spacers and has since then published in the Australia and New Zealand Journal of Surgery, Journal of Paediatric Orthopaedics, Foot and Ankle Clinics of North America, Foot and Ankle International, World Journal of Orthopaedics, EC Orthopaedics and the Journal of Osteoarthritis. He has over 20 years experience in various minimally invasive techniques and similar experience in advanced reconstruction in such conditions as charcot disease. At present, he is in private, clinical practice in Sydney, Australia.

admin@drgordonslater.com.au

