

2nd Annual Conference on
**ORTHOPEDECS, RHEUMATOLOGY
AND OSTEOPOROSIS**
April 15-16, 2019 | Milan, Italy

ORTHO CONGRESS 2019



SCIENTIFIC TRACKS & ABSTRACTS
DAY 1

DAY 1 SESSIONS

APRIL 15, 2019

Arthritis & Rheumatic Disease | Spine Surgery

SESSION CHAIR

Ioannis G Papanikolaou
University of Athens, Greece

SESSION CO-CHAIR

Maurizio Falso
Fondazione Madonna del Corlo, Italy

SESSION INTRODUCTION

- Title:** Perceptive and rehabilitative muscle recruitment facilitation secondary to the use of a dynamic and asymmetric spine brace in the treatment of Adolescent Idiopathic Scoliosis (AIS)
Maurizio Falso, Fondazione Madonna del Corlo, Italy
- Title:** Should Vitamin D3 and DEXA BMD be prescribed as a correlative cause for Lytic Spondylolisthesis
Ray Suhasish, Vivekananda Institute of Medical Sciences, India
- Title:** Cross-cultural adaptation and validity of the Arabic version of the intermittent and constant osteoarthritis pain questionnaire
Musab Alageel, National Guard Hospital, Saudi Arabia
- Title:** Treatment of stable vitiligo using both cultured and non-cultured autologous melanocytes from hair follicle ORS cell suspension
Shereen Mahmoud Kamel Shawky, Cairo University, Egypt
- Title:** Markers of osteoporosis (OPG and RANKL) in rheumatoid arthritis in different biologic therapies
Katarzyna Romanowska-Próchnicka, Institute of Rheumatology, Poland
- Title:** Cross-cultural adaptation and validity of the Arabic version of the intermittent and constant osteoarthritis pain questionnaire
Rawa Alohal, National Guard Hospital, Saudi Arabia

ORTHOPEDECS, RHEUMATOLOGY AND OSTEOPOROSIS

April 15-16, 2019 | Milan, Italy

Maurizio Falso et al., J ortho Rehab Surg. 2019, Volume 3 | DOI: 10.4066/2630-4473-C1-002

PERCEPTIVE AND REHABILITATIVE MUSCLE RECRUITMENT FACILITATION SECONDARY TO THE USE OF A DYNAMIC AND ASYMMETRIC SPINE BRACE IN THE TREATMENT OF ADOLESCENT IDIOPATHIC SCOLIOSIS (AIS)

**Maurizio Falso, Laura Forti, Silvia Iezzi, Gloria Cottali, Eleonora Cattaneo, Marco Zucchini
and Franco Zucchini**

Middle Cares Rehabilitation Unit – Fondazione Madonna del Corlo, Italy

Five patients affected by Adolescent Idiopathic Scoliosis were recruited for the aim of this study. Each patient underwent a first task-specific evaluation at time T0 and T1 and a secondary experimental course at time T2, T3 and T4. After a first postural and total spine X-ray evaluation, recruited patients began to use our innovative spine brace called BRIXIA (time T0 and T1). During the second experimental phase, a SEMG bilateral activity of the trunk large rhomboid, the latissimus dorsi and the quadratus lumborum was investigated without spine brace, by using a common Chenéau brace and afterwards the dynamic BRIXIA spine brace, with the acquisition of the so-called RMS EMG Ratio value. The SEMG measurements were acquired in six study conditions: SiRP; SiRCP; StRP; StRCP; BA. At the end of this SEMG evaluation, each patient received the final version of the BRIXIA spine brace and began a postural rehabilitative treatment course (time T2). At time T3 and T4 a second and third SEMG assessment was made without using a spine brace and by using BRIXIA. Finally, functional, radiographic and postural evaluations were made to define and quantify an amelioration and modification of patient's postural attitude. We observed at time T2 an homogeneous grade of paraxial muscle recruitment acquisition, expressed by the RMS EMG ratio index, without using spine brace (53, 3%) and by using Chenéau and BRIXIA brace (46, 7%); specifically, a (57, 14%) of our patients used BRIXIA brace and a (42, 86%) Chenéau brace at time T3, an homogeneous grade of symmetric paraxial muscle recruitment activity, expressed by the RMS EMG ratio index, was observed by using BRIXIA brace (56, 7%); all patients recruited (100%) showed in SiRCP study condition the most homogeneous and symmetric paraxial muscle recruitment by using BRIXIA brace; at time T4, an immodification of the grade of symmetric paraxial muscle recruitment acquisition, expressed by the RMS EMG ratio index, was observed in a 56, 7% of patients who were using BRIXIA. In a comparative and time-related analysis between our clinical and RMS data, Cobb angle trend showed a statistical significant correlation with RMS data, acquired at time T4 in BARC condition and without BRIXIA brace, and similarly with RMS data acquired at time T4 with BRIXIA brace. In line with the Visual Postural Analysis Trend, our rehabilitative model showed a sensible capacity to modify patient's individual sense of posturality, to increase the acquisition of cross-linked self-correction strategies and to induce a progressive rebalancing between the anterior and posterior kinetic muscle chains recruitment.

BIOGRAPHY

Maurizio Falso received his Degree of Medicine in 1999 and his specialization in Physical Medicine and Rehabilitation from the University of Medicine of Verona, Italy in 2004 followed by a post-specialization research on the management of spasticity and movement disorders at the Department of Neurological Sciences and Vision of the University of Verona, Italy by using botulinum toxin and baclofen pumps and analyzing motor patterns with video-surface EMG. He is a Professor at the Physiotherapist School of the Medicine University of Brescia, Italy and a past-member of the Italian Consensus Table on the use of xeomin in adult spasticity. In his career he also promoted the use of innovative dynamic carbon-kevlar custom made AFO (DAFONS), innovative postural devices in patients affected by neurological complex postural needs, the device treatment of idiopathic scoliosis by using an innovative dynamic spine brace called "BRIXIA" and the device treatment of gait disorders by using an innovative dynamic carbon kevlar foot insole called "PRODYNAMIC".

falsomaurizio@libero.it

2nd Annual Conference on ORTHOPEDECS, RHEUMATOLOGY AND OSTEOPOROSIS

April 15-16, 2019 | Milan, Italy

Ray Suhasish et al., J ortho Rehab Surg. 2019, Volume 3 | DOI: 10.4066/2630-4473-C1-002

SHOULD VITAMIN D3 AND DEXA BMD BE PRESCRIBED AS A CORRELATIVE CAUSE FOR LYTIC SPONDYLOLISTHESIS

Ray Suhasish¹ and Victoria Roy²

¹Vivekananda Institute of Medical Sciences, India

²Spineservices-india, India

Spondylolisthesis means slippage of overlying vertebrae with respect to the lower; one reason is break in the Spars interarticularis between two adjacent vertebral segments. Wiltse-Newman classified it Type 1, 2, 3, 4- among them 2 being sub classified 2A, B, C; 2A representing pars fatigue Fracture, 2B is repeated healing of pars fracture leading to elongating, and 2C is acute fracture as in accidents. The aim of the study was to find any relation between Type 2 spondylolisthesis and corresponding bone marrow density of lumbar done through DEXA scan and / or Vitamin D3 done by enzyme immunoassay method. 180 subjects between 20-60 years, with Type 2A or 2B type of listhesis were screened with BMD dexa score and VitD3. All those less than 20 and more than 60, neuropathy pain, with associated comorbidities, surgeries around the back interfering with DEXA, body weight more than 65 in male and 60 in female were excluded from the study. Vitamin D3 was estimated by enzyme immunoassay and DEXA BMD of lumbar spine by GE Lunar DEXA machine. The results of both were included in this retrospective non cohort non randomised judgemental study. Non parametric statistical tests like T tests, Z tests and Spearman's correlation tests gives $p > 0.05$ considered non-significant to the above. Prescription to estimate Vitamin D3 and BMD DEXA for lytic spondylolisthesis Type 2 is not a rational therapeutic regimen. It is suggested to suggest other investigations like genetic assay, dysplastic assessment and others.

BIOGRAPHY

Ray Suhasish had done his graduation in Medicine and Surgery in 1991. Postgraduate in Orthopedic Surgery in 2001 with thesis in external fixation to heal open fractures of tibia, Postoperative Diploma in Rheumatology from Delhi in 2006 and M.Ch in Orthopaedics in 2010.

suhasishray@gmail.com



Note:

2nd Annual Conference on ORTHOPEDECS, RHEUMATOLOGY AND OSTEOPOROSIS

April 15-16, 2019 | Milan, Italy

Musab Alageel et al., J ortho Rehab Surg. 2019, Volume 3 | DOI: 10.4066/2630-4473-C1-002

CROSS-CULTURAL ADAPTATION AND VALIDITY OF THE ARABIC VERSION OF THE INTERMITTENT AND CONSTANT OSTEOARTHRITIS PAIN QUESTIONNAIRE

Musab Alageel, Abdullah AlTurki, Ali A Alhandi, Rakan AlSalem, Rawa AlOhali and Sami Al-Eissa
National Guard Hospital, Saudi Arabia

Introduction: The Intermittent and Constant Osteoarthritis Pain Scale (ICOAP) was developed in focus groups study to evaluate the severity of the pain among knee/hip osteoarthritis patients and its impact on the quality of life. Furthermore, it is the only scale that can evaluate the constant and intermittent pain that could present in osteoarthritis patients. It can also be used for following the progression of the disease, the treatment responsiveness, and the need to joint replacement.

Objectives: This study aimed to translate and adapt ICOAP questionnaire into the Arabic language, and evaluate the validity and reliability of this scale in participants with knee/hip osteoarthritis

Methods: This questionnaire was translated based on Manufacturers Alliance for Productivity and Innovation (MAPI) protocol. Test-retest reliability was calculated using Intraclass Correlation Coefficient (ICC). Then, Cronbach's alpha was used to assess the internal consistency of ICOAP. Lastly, criterion validity was evaluated against Knee injury and Osteoarthritis Outcome Score (KOOS).

Results: A total number of 90 participants were included in this study, out of which 29 participants were re-evaluated for the reliability. The ICC of the knee ICOAP was 0.841, 0.923 and 0.911 for the total knee pain, constant and intermittent knee pain, respectively. Moreover, the ICC of the Hip ICOAP was 0.969, 0.98 and 0.95 for the total hip pain, constant and intermittent hip pain. Cronbach's alpha was 0.88, 0.93 and 0.94 for the total score, Intermittent and constant knee pain respectively. Additionally, Cronbach's alpha of hip ICOAP was 0.977, 0.963 and 0.985 for the total score, intermittent and constant hip pain, respectively. The criterion validity was $r = 0,24$ ($P < 0.05$), it reveals that there is a correlation between the total score of ICOAP and KOOS pain subscale.

Conclusion: The Arabic ICOAP is a valid and reliable instrument to be used in Arabic patients with knee/hip osteoarthritis

BIOGRAPHY

Musab Alageel is a fifth-year medical student at King Saud University in Saudi Arabia and he is planning to do Orthopedic in the Residency Program.

alageelmusab@gmail.com



Note:

Shereen Mahmoud Kamel Shawky, J ortho Rehab Surg. 2019, Volume 3 | DOI: 10.4066/2630-4473-C1-002

TREATMENT OF STABLE VITILIGO USING BOTH CULTURED AND NON-CULTURED AUTOLOGOUS MELANOCYTES FROM HAIR FOLLICLE ORS CELL SUSPENSION

Shereen Mahmoud Kamel Shawky^{1,2}

¹Cairo University, Egypt

²Al Kasr Al Ainy hospitals, Egypt

Background: Treatment of stable vitiligo is mainly surgical. A plethora of methods are being studied and modified, however none of them guarantee 100% cure up till now. Arguments existed about the safety, efficacy and convenience of cultured melanocytes as compared to non-cultured technique. In 2012, Savkovic and Co-workers developed an improved culture method amplifying human melanocytes from the hair follicles; however, they did not apply this method clinically for treating vitiligo patients.

Aim: To assess the efficacy and safety of a modified autologous cultured hair follicle outer root sheath cell suspension transplantation in the treatment of stable vitiligo lesions, and to compare it with the results of transplantation of autologous non-cultured hair follicle cell suspension within the same patient.

Patients & Methods: Hair samples were epilated from 24 patients with stable vitiligo (each sample 60-80 anagen hairs), hair follicle ORS was separated by two methods, cultured [we modified the culture method of Savkovic et al. (2012)] and non-cultured methods. Melanocytes characteristics in both methods were determined via measuring cellular melanin content by ELISA and the fold change in pre-melanosome (Pmel-17) gene expression. Patients' response was evaluated clinically for up to one year following treatment.

Results: Out of 24 patients, 19 patients completed the study, with a total of 40 lesions treated, 21 with cultured and 19 with non-cultured melanocyte cell suspension and continued the follow-up period. Eight (20%) lesions showed excellent response (2 (25%) of them with non-cultured and 6 (75%) with cultured), 10 (25%) good (3 (30%) of them with non-cultured & 7 (70%) with cultured), 7 (17.5%) fair (3 (43%) of them with non-cultured and 4 (57%) with cultured), and 15 (37.5%) showed poor response (11 (73%) of them with non-cultured and 4 (27%) with cultured). Melanin content and melanocyte viability were more with the modified cultured technique.

Conclusion: Our provided modified autologous hair follicle ORS melanocytes cultured cell suspension transplantation method is a promising option for treating stable vitiligo lesions, however it is more expensive and time consuming than the non-cultured method. A plethora of interventions had been introduced for treating stable vitiligo lesions, however none could guarantee 100% cure. Arguments existed about the safety, efficacy and convenience of cultured melanocytes as compared to non-cultured technique. In 2012, Savkovic and Co-workers developed an improved culture method amplifying human melanocytes from the hair follicles; however, they did not apply this method clinically for treating vitiligo patients. We assessed the efficacy and safety of modified autologous cultured hair follicle outer root sheath cell suspension transplantation in the treatment of stable vitiligo lesions, in comparison to autologous non-cultured hair follicle cell suspension transplantation within the same patient. The modified cultured method seems to be promising although more expensive and more time consuming than the non-cultured technique.

2nd Annual Conference on **ORTHOPEDECS, RHEUMATOLOGY AND OSTEOPOROSIS**

April 15-16, 2019 | Milan, Italy

BIOGRAPHY

Shereen Mahmoud Kamel Shawky currently working as a Professor of Clinical and Chemical Pathology, Cairo University, and as a Head of transfusion medicine department in Al Kasr Al Ainy Hospitals. After obtaining the MBBCH 1990: degree of excellence and grade of honor residency in Al Kasr Al Ainy hospital from 1992-1995, she earned a thesis of master's degree in immunology entailing expression and distribution of MHC class II antigens on normal and malignant cells, and a Master's Degree in Clinical Pathology in November 1994, as well as an MD thesis entailing heterogeneity of T cell receptor variable β region in rheumatoid arthritis (1998). Later on, she earned her MD degree in medical immunology (1998).

shereenshawky2010@gmail.com



Katarzyna Romanowska-Próchnicka et al., J ortho Rehab Surg. 2019, Volume 3 | DOI: 10.4066/2630-4473-C1-002

MARKERS OF OSTEOPOROSIS (OPG AND RANKL) IN RHEUMATOID ARTHRITIS IN DIFFERENT BIOLOGIC THERAPIES

Katarzyna Romanowska-Próchnicka^{1,4}, Agnieszka Paradowska-Gorycka², Małgorzata Mańczak³, Anna Felis-Giemza¹, Sławomir Maśliński⁴, Dariusz Szukiewicz⁴ and Marzena Olesińska¹

¹Department and Polyclinic of Systemic Connective Tissue Diseases, Institute of Rheumatology, Poland

²Department of Biochemistry and Molecular Biology, Institute of Rheumatology, Poland

³Department of Epidemiology and Health Promotion, Institute of Rheumatology, Poland

⁴Department of General and Experimental Pathology, CEPT laboratory, Medical University of, Poland

Introduction: Osteoprotegerin (OPG) is a soluble decoy receptor which blocks osteoclast differentiation and activation by neutralizing the receptor activator of NF- κ B ligand (RANKL). The balance between RANKL, which stimulates osteoclast genesis and osteoplastic activation, and its physiological antagonist OPG plays a critical role in the regulation of bone resorption in rheumatoid arthritis (RA).

Objectives: The aim of the study was to examine the impact of various drug therapies in RA on the bone turnover activity markers, i.e. sRANKL and OPG.

Material: A group of 125 patients (pts) with RA and a control group of 42 healthy people have been qualified to the study. All patients fulfilled the American College of Rheumatology (ACR 2010) criteria for RA. RA group was divided into several subgroups. First group included 39 RA pts on Leflunomide. Second group included 49 RA pts on Methotrexate (MTX) and Etanercept (First line biologic therapy). Third group included 16 RA pts on MTX and Adalimumab, Golimumab, Infliximab (Second line biologic therapy). Fourth group included 16 RA pts on MTX and antiCD20 or anti IL6 (Third line biologic therapy). Fifth group included 44 RA pts on Disease-modifying Antirheumatic drugs (DMARD's), 39 of them were included into Leflunomide therapy, also with intolerable toxicity to MTX. Estimate research period was 12 months. Average age of participants was 54 (22-79 years). All pts have been examined based on DAS28 before and after 90 days of therapy. The blood samples for bone markers RANKL and OPG levels were measured by ELISA after 90 days therapy. Bone erosions in hands and feet were evaluated by Larsen methods. DEXA scan of femoral neck was performed.

Results: All subgroups of RA pts were compared in respect of markers of osteoporosis. The individual groups of pts do not differ from each other in the following parameters: The radiological destructions of the disease, organ damage, presence of anti-CCP and RF, the average use of GKS, and co-occurrence with osteoporosis and osteopenia. The above-mentioned groups of pts were relatively homogeneous. In all groups of RA pts treated with various therapies decreased level of sRANKL/OPG has been observed compared to DMARD therapy (Leflunomide to DMARD's- $p < 0,06$, first line biologic therapy to DMARD's- $p < 0,05$, second line biologic therapy to DMARD's- $p < 0,04$, third line biologic therapy to DMARD's $p < 0,001$). Additionally in the RA group treated with anti CD20 and anti IL6 therapy serum OPG level was significantly higher than in other group ($p < 0,003$). Furthermore, serum sRANKL level was reduced in the third-line therapy compared to DMARD's ($p < 0,003$) (Figure 1).

Conclusions: In conclusion our findings indicate that both OPG as well as sRANKL help with evaluation of treatment effectiveness in RA and are useful parameters in daily clinical practice.

2nd Annual Conference on ORTHOPEDECS, RHEUMATOLOGY AND OSTEOPOROSIS

April 15-16, 2019 | Milan, Italy

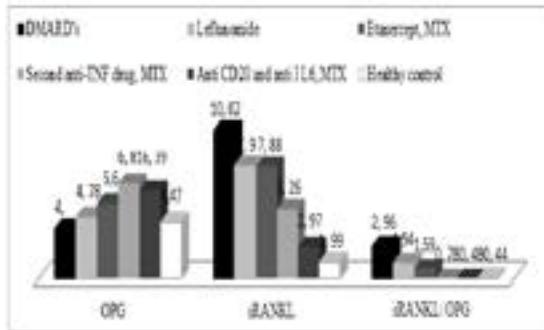


Figure 1. Comparison of serum level of OPG and RANKL in RA pts on different therapies.

BIOGRAPHY

Katarzyna Romanowska-Próchnicka has completed her specialization in Rheumatology and Internal Medicine from National Institute of Geriatrics, Rheumatology and Rehabilitation, Department of Connective Tissue Disease and awarded the PhD and MD in Medicine at Warsaw Medical University, Poland. Currently, she is an Assistant Professor at Warsaw Medical University in Pathology Department, where she has completed her Young Assistant- Internship at Military Institute of Medicine at Warsaw, Poland.

Katarzyna.prochnicka@gmail.com



Note:

2nd Annual Conference on ORTHOPEDECS, RHEUMATOLOGY AND OSTEOPOROSIS

April 15-16, 2019 | Milan, Italy

Rawa AlOhalı et al., J ortho Rehab Surg. 2019, Volume 3 | DOI: 10.4066/2630-4473-C1-002

CROSS-CULTURAL ADAPTATION AND VALIDITY OF THE ARABIC VERSION OF THE INTERMITTENT AND CONSTANT OSTEOARTHRITIS PAIN QUESTIONNAIRE

Rawa AlOhalı, Musab Alageel, Abdullah AlTurki, Ali A Alhandi, Rakan AlSalem and Sami Al-Eissa
National Guard Hospital, Saudi Arabia

Introduction: The Intermittent and Constant Osteoarthritis Pain Scale (ICOAP) was developed in focus groups study to evaluate the severity of the pain among knee/hip osteoarthritis patients and its impact on the quality of life. Furthermore, it is the only scale that can evaluate the constant and intermittent pain that could present in osteoarthritis patients. It can also be used for following the progression of the disease, the treatment responsiveness, and the need to joint replacement.

Objectives: This study aimed to translate and adapt ICOAP questionnaire into the Arabic language, and evaluate the validity and reliability of this scale in participants with knee/hip osteoarthritis

Methods: This questionnaire was translated based on Manufacturers Alliance for Productivity and Innovation (MAPI) protocol. Test-retest reliability was calculated using Intraclass Correlation Coefficient (ICC). Then, Cronbach's alpha was used to assess the internal consistency of ICOAP. Lastly, criterion validity was evaluated against Knee injury and Osteoarthritis Outcome Score (KOOS).

Results: A total number of 90 participants were included in this study, out of which 29 participants were re-evaluated for the reliability. The ICC of the knee ICOAP was 0.841, 0.923 and 0.911 for the total knee pain, constant and intermittent knee pain, respectively. Moreover, the ICC of the Hip ICOAP was 0.969, 0.98 and 0.95 for the total hip pain, constant and intermittent hip pain. Cronbach's alpha was 0.88, 0.93 and 0.94 for the total score, Intermittent and constant knee pain respectively. Additionally, Cronbach's alpha of hip ICOAP was 0.977, 0.963 and 0.985 for the total score, intermittent and constant hip pain, respectively. The criterion validity was $r = 0,24$ ($P < 0.05$), it reveals that there is a correlation between the total score of ICOAP and KOOS pain subscale.

Conclusion: The Arabic ICOAP is a valid and reliable instrument to be used in Arabic patients with knee/hip osteoarthritis.

BIOGRAPHY

Rawa Alohali is a fifth-year medical student at King Saud University in Saudi Arabia and he is planning to do Orthopedic in the Residency Program.

rayyoo434@gmail.com

2nd Annual Conference on
**ORTHOPEDICS, RHEUMATOLOGY
AND OSTEOPOROSIS**
April 15-16, 2019 | Milan, Italy

ORTHO CONGRESS 2019



**YOUNG RESEARCHERS FORUM
DAY 1**

2nd Annual Conference on ORTHOPEDICS, RHEUMATOLOGY AND OSTEOPOROSIS

April 15-16, 2019 | Milan, Italy

Egle Terteliene et al., J ortho Rehab Surg. 2019, Volume 3 | DOI: 10.4066/2630-4473-C1-002

INADEQUATE EVALUATION AND MANAGEMENT OF SUSPECTED INFECTIONS AFTER TKA SURGERY- A REPORT FROM THE LITHUANIAN ARTHROPLASTY REGISTER ON 2,769 PATIENTS WITH TWO YEAR FOLLOW-UP

Egle Terteliene¹, Kazimieras Grigaitis², Otto Robertsson³, Justinas Stucinskas²,
Sarunas Tarasevicius², Narunas Porvaneckas¹ and Algirdas Venalis^{1,4}

¹Vilnius University, Lithuania

²Lithuanian University of Health Sciences, Lithuania

³Lund University and Lund University Hospital, Sweden

⁴State Research Institute Center for Innovative Medicine, Lithuania

Backgrounds & Purpose: The evidence-based algorithms for the treatment of periprosthetic joint infection (PJI) recommend surgical intervention in combination with use of systemic antibiotics. However, still it is not unusual to treat Total Knee Arthroplasty (TKA) patients with suspected infection only using antibiotics (AB). The aim of our study was to investigate treatment pathways for patients after TKA with suspected infection in Lithuania.

Patients & Methods: Of the 4,069 TKA patients (4,269 knees) registered in the Lithuanian Arthroplasty Register 2,769 patients (2 825 knees), were interviewed two years after the surgery. The patients were inquired if they had been subject to AB treatment after the TKA surgery and/or if any additional surgical interventions on the operated knee had been performed. The number of patients treated with antibiotics due to problems in the operated knee was identified and Cumulative Revision Rates (CRR) were calculated.

Results: 188 (6 %) patients out of the 2,769 reported that they had been prescribed AB after the primary TKA, 132 patients (70%) said they had received AB due to problems with the operated knee. Out of the 132 patients, 68 (51.5%) reported that the reason for the AB treatment had been infection prophylaxis, while the remaining 64 patients (48.5%) reported that the reason for the treatment had been that the physician had suspected a prosthetic joint infection (redness, pain, swelling on operated knee, wound leakage). The two- year CRR after TKA in patients not treated with AB was 0.7% (CI 0.4; 1), as compared to 23.6% (CI 17.3; 31.7) in those who had used antibiotics due to the problems in operated knee for more than one week.

Interpretation: In Lithuania there seems to be a lack of adherence to evidence based treatment guidelines when infection is suspected after primary TKA.

BIOGRAPHY

Egle Terteliene is a PhD student in Vilnius University, Lithuania. Her field of interest is total joint arthroplasty. She is one of the member of group researchers working with Lithuanian Arthroplasty Register and presenting results in international conferences and preparing manuscripts.

egle.terteliene@gmail.com

2nd Annual Conference on ORTHOPEDECS, RHEUMATOLOGY AND OSTEOPOROSIS

April 15-16, 2019 | Milan, Italy

En Lin Goh et al., J ortho Rehab Surg. 2019, Volume 3 | DOI: 10.4066/2630-4473-C1-002

DIRECT ORAL ANTI-COAGULANTS IN THE PREVENTION OF VENOUS THROMBOEMBOLISM FOLLOWING SURGERY FOR HIP FRACTURE IN THE ELDERLY

En Lin Goh^{1,2}, Pratha Guring², Angela Kannan² and Sambandam Anand²

¹University of Oxford, United Kingdom

²Horton General Hospital, United Kingdom

Background: Direct Oral Anti-Coagulants (DOACs) decrease the risk of Venous Thromboembolism (VTE) without increasing the risk of bleeding in elective lower limb orthopedic surgery. However, the role of DOACs in preventing VTE following hip fracture surgery in the elderly remains unclear. This study aims to evaluate the efficacy and safety of DOACs in elderly patients undergoing surgery for hip fracture.

Methods: Single-center, retrospective, matched cohort study of patients receiving either a DOAC or Low Molecular Weight Heparin (LMWH) for VTE prophylaxis following hip fracture surgery.

Data obtained: Patient demographics, co-morbidities, fracture classification, time to surgery, procedure performed and length of stay.

Outcomes Assessed: Incidence of VTE, incidence of major haemorrhage and death within 30 days of surgery.

Results: A total of 108 patients (DOAC group = 54, LMWH group = 54) were included. The incidence of VTE was comparable between the DOAC and LMWH groups at 0% and 7.4% respectively (RR: 0.11, 95% CI: 0.01 to 2.02, p= 0.14). Haemorrhage occurred in 7.4% of patients in the DOAC group and 5.6% of patients in the LMWH group (RR: 1.33, 95% CI: 0.31 to 5.68, p= 0.70). Mortality from VTE was 0% in the DOAC group and 1.9% in the LMWH group (RR: 0.33, 95% CI: 0.01 to 8.01, p = 0.49). Mortality from haemorrhage was 1.9% in both the DOAC and LMWH groups (RR: 1.00, 95% CI: 0.06 to 15.58, p = 0.99).

Conclusion: This study demonstrates comparable efficacy and safety of DOACs with LMWH in the prevention of VTE following surgery for hip fracture in the elderly. This can be achieved with careful patient selection. Future studies are required to identify patients who stand to benefit the most from treatment.

BIOGRAPHY

En Lin Goh is a Trauma and Orthopaedics Academic Foundation Programme Trainee in University of Oxford, United Kingdom. He qualified his Distinctions from Imperial College, London with in Medical Sciences, Clinical Sciences and Clinical Practice. He got First Class Honours in Pharmacology in 2018. He has received 24 prizes and awards across various disciplines in basic science, pathology and clinical medicine throughout his medical training. His research interests include bone pharmacology, bone quality and joint diseases, in which he has published 24 peer-reviewed publications and delivered 31 presentations at national and international conferences. Currently he is a Foundation Educational Lead for the Oxford Foundation Programme.

enlin.goh@doctors.org.uk

2nd Annual Conference on
**ORTHOPEDECS, RHEUMATOLOGY
AND OSTEOPOROSIS**
April 15-16, 2019 | Milan, Italy

ORTHO CONGRESS 2019



SCIENTIFIC TRACKS & ABSTRACTS
DAY 2

DAY 2 SESSIONS

APRIL 16, 2019

Alternative Medicine in Orthopedics and Rheumatology

SESSION CHAIR

Ash Harkara
VOLMO Pvt. Ltd, United Kingdom

SESSION CO-CHAIR

Paige L Long Sharps
Montefiore Medical Center, USA

SESSION INTRODUCTION

Title: TRIA-MF protocol as an innovative tool in the comprehensive treatment and outcome evaluation of lower limb amputees before and after prosthesis use

Maurizio Falso, Fondazione Madonna del Corlo, Italy

2nd Annual Conference on ORTHOPEDECS, RHEUMATOLOGY AND OSTEOPOROSIS

April 15-16, 2019 | Milan, Italy

Maurizio Falso et al., J ortho Rehab Surg. 2019, Volume 3 | DOI: 10.4066/2630-4473-C1-002

TRIA-MF PROTOCOL AS AN INNOVATIVE TOOL IN THE COMPREHENSIVE TREATMENT AND OUTCOME EVALUATION OF LOWER LIMB AMPUTEES BEFORE AND AFTER PROSTHESIS USE

Maurizio Falso, Silvia Zani, Eleonora Cattaneo, Marco Zucchini and Franco Zucchini
Fondazione Madonna del Corlo, Italy

The aim of this study was to define the efficacy and outcome value of an innovative procedure tool (TRIA-MF protocol) in the treatment of lower limb amputees before and after prosthesis use with the purpose to quantify the quality of the procedure and its economic impact on the clinical patients' recovery. 12 patients (4 women and 8 males) subjected to lower limb amputation and admitted according to the principles of inclusion criteria of the TRIA-MF protocol at the Rehabilitation Department of the Clinical Institute Città di Brescia were recruited in this study. All patients were included in an integrated and task-specific management protocol of the amputee, which allow to follow the rehabilitation process from amputation to the final restoration, for a period of 6 months for each patient. Patients were evaluated five times during the study, collecting their degree of pain (VAS), their independence profile (Barthel Index) and the circumference of their amputation stump. Data on the duration of their admission to the rehabilitation unit, the inter-time between the amputation and acquisition of the temporary prosthesis, and between temporary prosthesis acquisition and the final prosthesis acquisition were also reported. Patients of our sample, at the end of their hospitalization, highlight a significant modification of the temporal data at first month and sixth month from their hospital discharge. A statistical significant increase of the Barthel Index value was observed in all patients recruited in this study proceeding from time T0 to time T4; in the same way, a statistical significant decrease of the VAS scale was observed in all patients recruited proceeding from time T0 to time T4; the circumference of the amputation stump (expressed in cm) showed a statistical significant decrease in all patients recruited proceeding from time T0 to time T4. We haven't observed a statistical significant correlation between the duration of the rehabilitative hospitalization and the clinical data; no statistical significant correlation was observed between the amputation stump circumference time-related modification and the intertime data.

BIOGRAPHY

Maurizio Falso received his Degree of Medicine in 1999 and his specialization in Physical Medicine and Rehabilitation from the University of Medicine of Verona, Italy in 2004 followed by a post-specialization research on the management of spasticity and movement disorders at the Department of Neurological Sciences and Vision of the University of Verona, Italy by using botulinum toxin and baclofen pumps and analyzing motor patterns with video-surface EMG. He is a Professor at the Physiotherapist School of the Medicine University of Brescia, Italy and a past-member of the Italian Consensus Table on the use of xeomin in adult spasticity. In his career he also promoted the use of innovative dynamic carbon-kevlar custom made AFO (DAFONS), innovative postural devices in patients affected by neurological complex postural needs, the device treatment of idiopathic scoliosis by using an innovative dynamic spine brace called "BRIXIA" and the device treatment of gait disorders by using an innovative dynamic carbon kevlar foot insole called "PRODYNAMIC".

falsomaurizio@libero.it