VIENNA AUSTRIA

DAILY NEWS
1 JUNE 2017

18th EFORT CONGRESS

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Schedule of Events

Orthopaedics & Trauma Surgery in the World of Formula 1
08:15 - 09:45, Madrid Room

The Importance of Postoperative Pain Management After Sports Injuries
13:15 - 14:45, Florence Room

Return to Sport Activities After Arthroplasty
17:00 - 18:30, Paris Room

FREE PAPERS

Join your colleagues on **Friday, 2 June in the Helsinki Room** to serve as a judge for the Free Papers Awards competition.

10:15 – 11:15, Top trauma papers
11:30 – 12:30, Top orthopaedics papers

Patient and surgeon factors affect patients' ability to return to sports after knee surgery

Philippe Neyret

Return to sports has several advantages for patients with degenerative knees who undergo total knee arthroplasty (TKA), unicompartmental arthroplasty, high tibial osteotomy or cartilage treatments and want to return to sports, according to presenters in a symposium on 31 May, moderated by **Philippe Neyret, MD,** at the 18th EFORT Annual Congress in Vienna.

Stefano Zaffagnini, MD, who discussed return to sports after TKA, noted patients can experience increased bone mineral density and decreased risk of early prosthesis loosening when they are active following TKA. The surgeon plays a key role in return to sports after TKA, he said.

"We need to motivate our patients much better."

Obesity, female gender and comorbidities make it difficult for patients to return to sports, Zaffagnini said. Although sports can often be pursued postoperatively by patients after TKA, surgeons must be aware of the risk of implant loosening after TKA in an active patient.

About 90% of patients can return to sports after unicompartmental knee arthroplasty (UKA), **Mahmut Nedim Doral, MD,** PhD, said, noting UKA functional results are traditionally better vs. TKA. The technique used is also important, particularly for alignment and posterior tibial slope.

"Do not forget conservative methods. Proper preoperative evaluation is key and patient selection is very important," Doral said.

*(**Neyret** continues on page 7)*

Study finds 27% overall all-cause Pinnacle metal-on-metal THR failure rate at 10 years

Gulraj S. Matharu

Patients treated at a single centre with one brand of metal-on-metal total hip replacement had a statistically significantly greater risk of implant failure if they had bilateral surgery or were operated on in 2006 or later, according to the 10-year results **Gulraj S. Matharu, BSc (Hons), MBChB, MRCS,** of Oxford, United Kingdom, presented 31 May, at the 18th EFORT Annual Congress in Vienna.

The 569 patients studied retrospectively had standard demographics, he said. They underwent THR with the Pinnacle prosthesis (DePuy Synthes) with a 36-mm cobalt chrome head and an uncemented Corail stem (DePuy Synthes).

"This large cohort study of Pinnacle metal-on-metal (MoM) [total hip replacements] THRs has confirmed a high failure rate at 10 years with this device, but it is especially seen if the Pinnacle was put in from 2006 onwards and in bilateral MoM hip patients. This supports

*(**Matharu** continues on page 7)*

GRÜNENTHAL Grünenthal GmbH has contributed financial support to EFORT toward the promotion of a postoperative pain management initiative, including the printing costs of this Congress Daily.

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For sublingual use only. The tablet will dissolve under the tongue and should not be crushed, chewed or swallowed. Patients should not eat or drink and minimise talking for 10 mins after each dose. A maximum of 3 doses (45 mcg) can be delivered in one hour. *Elderly:* No special population studies performed. Safety and efficacy in elderly patients similar to that observed in younger adults. *Hepatic/renal impairment:* Limited data available. Administer with caution in moderate to severe hepatic or severe renal impairment. *Paediatric population:* No safety and efficacy established in children below 18 years. **Contraindications:** Hypersensitivity to active substance or any excipients. Significant respiratory depression. **Special warnings and precautions:** *Respiratory depression:* Sufentanil may cause respiratory depression. Respiratory effects should be assessed by clinical monitoring. Those with respiratory impairment or reduced respiratory reserve are at higher risk. Respiratory depression can be reversed by opioid antagonists. *Intracranial pressure:* Use with caution in patients susceptible to cerebral effects of CO2 retention (e.g. increased intracranial pressure or impaired consciousness). May obscure the clinical course of patients with head injury. Use with caution in patients with brain tumours. *Cardiovascular effects:* May produce bradycardia. Caution in patients with previous or pre-existing bradyarrhythmias. May cause hypotension, especially in hypovolaemic patients. *Impaired hepatic or renal function:* Duration of sufentanil activity may be prolonged in patients with severe hepatic and renal impairment. Monitor for overdose in moderate to severe hepatic impairment or severe renal impairment. *Abuse potential and tolerance:* Potential for abuse; consider where concern of misuse, abuse or diversion. *Gastrointestinal effects:* May slow gastrointestinal motility. Use with caution in risk of ileus. May cause spasm of the sphincter of Oddi; use with caution in biliary tract disease, including pancreatitis. Other: Ensure patients have been appropriately instructed on how to operate the Zalviso administration device. Consider patient's ability (visual or cognitive) to use the device appropriately. *Excipients:* Contains colouring agent sunset yellow FCF Aluminium Lake (E110). **Interactions:** *Cytochrome P450-3A4 (CYP3A4) enzyme:* Primarily metabolised by CYP3A4. Ketoconazole can significantly increase systemic exposure to sufentanil. Similar effects with other potent CYP3A4 inhibitors cannot be excluded. 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Should administer opioid antagonist (e.g. naloxone) in respiratory depression. **Legal classification:** POM, CD (Schedule 2). **Marketing Authorisation holder:** Grünenthal GmbH, Zieglerstraße 6, 52078 Aachen, Germany. **Date of preparation:** February 2016.

Free Paper Awards

This year, the Free Paper Awards are divided into two different sessions: trauma and orthopaedics. In each session, a gold, silver and bronze prize will be awarded. At the 18th EFORT Annual Congress in Vienna, the audience will select winners by voting system, based on the content and quality of the presentation. The authors listed here have been nominated for the award.

"EFORT is one of the few scientific meetings that carefully evaluates all submitted papers using three reviewers, who perform the evaluation independently from each other," **Jan Verhaar, MD, PhD,** EFORT president, said. "The papers selected for our meeting are the best of the best, and the papers for this award represent excellence in our community. I would like to congratulate the presenters who have been selected for this award ceremony."

TRAUMA

FRIDAY 2 JUNE
10:15
HELSINKI ROOM

Sven Märdian and colleagues
Interprosthetic Fracture Risk Following Ipsilateral Hip and Knee Arthroplasty – Relevance of Interprosthetic Distance

Fabian Krause and colleagues
Weightbearing Radiographs vs. Gravity Stress Radiographs for Stability of Supination-External Rotation Fractures of the Ankle

Hassaan Qaiser Sheikh and colleagues
Odontoid Type II Fractures in the Elderly - Complications and Mortality

Efstathios Chronopoulos and colleagues
The Purpose of Use of a Targeting Exercise Program to Minimize the Post-Operative Strength Deficit of Abductors Muscles After Hip Fracture

Rafael Carbonell and colleagues
Long-Term Functional Results of Pink Pulseless Supracondylar Fractures in Children Treated Conservatively

Sandra Bösmüller and colleagues
The Influence of Sex and Trauma Impact on the Rupture Site of the Ulnar Collateral Ligament of the Thumb

ORTHOPAEDICS

FRIDAY 2 JUNE
11:30
HELSINKI ROOM

Maria Anna Smolle and colleagues
Why Should Unplanned Excisions Best Be Avoided in Soft Tissue Sarcomas? Results of a Multi-Centre Study Including 728 Patients

Anthony Howard and colleagues
Does Cortical Activation Hold the Key to Shoulder Instability?

Per Jolbäck and colleagues
Does the Surgeon's Experience Affect Patient-Reported Outcomes 1 Year After Primary Total Hip Arthroplasty? A Register-Based Study of 6,713 Cases in Western Sweden

Anthony Howard and colleagues
Randomised Control Trial: The Functional Benefits of Retaining the Infrapatellar Fat Pad in a Total Knee Replacement

Prasad Karpe and colleagues
Supramalleolar Osteotomy: A Joint-Preserving Option for Advanced Ankle Osteoarthritis

Ted Eneqvist and colleagues
Does a Previous Total Hip Replacement Influence Patient-Reported Outcomes in Patients Undergoing Low Back Surgery?

Jacques Duparc Award winners receive a grant and a certificate as recognition for submitting one of the ten best-scored poster presentations of the year.

Winner: Cecilia Rogmark and colleagues
Decreasing Predictive Power of Comorbidity on Mortality After Total Hip Arthroplasty Over Time

Winner: Klemen Stražar and colleagues
Hipstress After Bilateral Periacetabular Osteotomy Based on Medialization of the Hip Centre

Winner: Katja Šuster and colleagues
Diagnostics of Staphylococcus Spp. *Prosthetic Joint Infections With Bacteriophage K*

Winner: Sebastian Radmer and colleagues
Three-Dimensional, CT-Assisted Planning Aid in Primary Hip Arthroplasty

Winner: Jorge Nuñez Camarena and colleagues
Outcome Of Primary One-Stage Total Hip Arthroplasty for Patients With Tuberculosis of the Hip

Winner: Satoshi Nagoya and colleagues
Evaluation of a Navigation System for Re-Orientation Rotational Acetabular Osteotomy (RAO)

Winner: Anastasia Rakow and colleagues
Reversibility of MoM Wear Products Related Decrease in the Osteogenic Capacity of Mesenchymal Stromal Cells In Vitro

Winner: Stefan BT Bolder and colleagues
Paper title: The Effect Of Primary Diagnosis On The Survival After Total Hip Arthroplasty

Winner: Masayuki Miyagi and colleagues
Hip Spine Syndrome: Cross-Sectional-Study of Spinal Alignment in Patients With Coxalgia

Winner: Simon Parker and colleagues
Does Lumbar Arthrodesis Compromise Outcome Following Hip Arthroplasty? A Case Control Study

Honorary lectures highlight hot topics in orthopaedic research

At each EFORT Annual Congress, two orthopaedic surgeons with international reputations in their field present the Erwin Morscher and Michael Freeman Honorary Lectures. This year, EFORT is pleased to welcome **Nico Verdonschot, MD,** from The Netherlands, and **Henrik Kehlet, MD,** from Denmark, who will give lectures on biomechanical modeling and fast-track surgery, respectively. Attendance at these sessions is included in the full Congress registration.

Nico Verdonschot

Thursday 1 June 2017
12:45 – 13:15

Development of Patient-Specific Reconstructive Methods Using Advanced Imaging and Biomechanical Modeling Techniques

Nico Verdonschot, MD, is professor in the Department of Biomechanical Engineering at Twente University and in the Orthopaedic Department of Radboud University Medical Center. Prof. Verdonschot coordinates two European consortia that focus on orthobiomechanic problems and is the coauthor of more than 260 peer-reviewed publications.

Verdonschot's research focus is computer simulations of implants, the prediction of fractures in weakened bones and musculoskeletal modeling. Verdonschot and colleagues have studied the effect of muscle loads on implants, simulation of periprosthetic bone remodeling, micromechanics of the cement-bone interface, fatigue behavior of bone cement, the process of bone in-growth into coated implants, simulation of fractures in bones affected by cancer, kinematic behavior of knee prostheses and sensitivity of musculoskeletal models to changes in muscle parameters.

Verdonschot's lecture reviews his research on generating patient-specific computer models using diagnostic imaging technology. With these models, Verdonschot seeks to predict functional outcomes after surgery.

Friday 2 June 2017
12:45 – 13:15

Fast-Track Hip and Knee Replacement – Have We Reached the Goal?

Henrik Kehlet, MD, is professor of

Henrik Kehlet

Perioperative Therapy at Rigshospitalet, Copenhagen University in Denmark, and an Honorary Fellow of the Royal College of Anaesthetists (United Kingdom), the American College of Surgeons, the American Surgical Association, the German Surgical Society and the German Anaesthesiological Society. Prof. Kehlet has published scientific articles about surgical pathophysiology, acute pain physiology and treatment, the surgical stress response, postoperative immune function and perioperative morbidity. Results of his research led to the concept of fast-track surgery, which has been implemented worldwide to help surgeons and patients attain pain-free and risk-free operations.

The goal of fast-track surgery is to decrease complications and improve postoperative recovery. Fast-track surgery clinical groups have reported a notable decrease in hospital stay and diminished surgical morbidity.

In his lecture, Prof. Kehlet will explore what fast-track surgery has achieved to date and how it applies to hip and knee replacements – two of the most frequently performed orthopaedic procedures.

Low back surgery patients with previous THR have less pain reduction after surgery

Ted Eneqvist

Patients who had previously undergone total hip replacement experienced less reduction of pain 1 year after low back surgery compared to patients with no prior total hip replacement, according to a presentation scheduled to be presented during the Free Papers award session for orthopaedics at the 18th EFORT Annual Congress in Vienna.

Researchers reviewed the Swedish Spine Register and the Swedish Hip Arthroplasty Register to extract demographic and surgical data, along with patient-reported outcome measures (PROMs), for patients who underwent low back surgery or total hip replacement (THR) for degenerative spine or hip disorders. The researchers combined data from the two registries to identify patients from both. The two groups were directly matched on age, sex, year of surgery, spinal stenosis, type of surgery and preoperative PROM scores. After selection and matching to a corresponding control patient, the researchers analysed the differences in PROM scores in the study group vs. the controls. One-year patient reported outcomes after low back surgery were also assessed.

After linear regression analyses were used to adjust for age and preoperative PROM scores, the researchers found prior THR was associated with more back pain and worse scores on the ODI but had no correlation with EQ-5D index, EQ-VAS or leg pain VAS. Researchers found no correlation regarding time between surgeries and patient-reported outcomes.

"The combination of degenerative diseases of the hip and spine known as the 'hip-spine syndrome' are common encounters in patients eligible for total hip replacement and low back surgery," **Ted Eneqvist, MD,** of Sahlgrenska Universitetssjukhuset, Gothenburg, Sweden, told *Orthopaedics Today Europe*. "This study describes the patient-reported outcome measures following low back surgery in patients with and without an earlier total hip replacement, and shows that the patients with an earlier hip replacement have a moderately worse outcome following low back surgery."

Reference:

Eneqvist T, et al. Paper #2337. Scheduled to be presented 2 June 2017 at 12:10 - 12:18 in the Helsinki Room at the 18th EFORT Annual Congress; 31 May - 2 June 2017; Vienna.

Source Info:

Ted Eneqvist, MD, can be reached at Sahlgrenska University Hospital, Blå stråket 5, 413 45 Gothenberg, Sweden; email: ted.eneqvist@vgregion.se.

Disclosure:

Eneqvist reports no relevant financial disclosures.

SYMPOSIUM INVITATION

THURSDAY, 1 JUNE
AUDITORIUM FLORENCE, 13:15 - 14:45

THE IMPORTANCE OF **POST-OPERATIVE PAIN MANAGEMENT** AFTER SPORTS INJURIES

Chair: **Prof. Per Kjaersgaard-Andersen**
Co-Chair: **Prof. Enric Cáceres Palou**

13:15 - 13:40 **Principles of appropriate pain management after surgery due to sports injuries**
Prof. Per Kjaersgaard-Andersen

13:40 - 14:05 **Pain and recovery – what do we know from THA and TKA**
Prof. Henrik Kehlet

14:05 - 14:30 **Why should orthopedic surgeons worry about post-operative pain management? – Introducing an awareness campaign**
Prof. Enric Cáceres Palou

14:30 - 14:45 **Q & A**

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Preferential rate for the EBOT Exam (subject to acceptance of the application documents)				√

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Variety of Scientific sessions to be held at EFORT Annual Congress

The EFORT 2017 meeting includes a wealth of educational opportunities. The Advanced Course and Comprehensive Review Course will be taught by scholarly and distinguished faculty from all across Europe. Residents who seek to expand their specialty knowledge will find the Easy Evidence Update and Instructional Lecture sessions interesting. Interactive Expert Exchange, Complex Case Discussion and Debate Fora sessions, led by world-renowned faculty, draw on contributions from the audience. Evidence Based Medicine and Symposia sessions allow attendees to hear presentations and review evidence in order to arrive at best practices based on group analysis.

The **Advanced Course** will feature an extended program on the latest approaches to reconstruction of knee and hip in adults. The course aims to provide joint replacement specialists and consultants with an update on the latest in techniques and treatments.

The **Comprehensive Review Course** aims to provide the core theoretical knowledge trainees are required to have at the end of their specialty curriculum. The 1-day course addresses key topics, such as pediatrics, reconstruction, trauma and sport activities.

Easy Evidence Update sessions are designed to provide educational material in the form of knowledge skills and attitudes that will enhance best professional practice and allow an easy review of some common conditions in the lower limb.

The **Instructional Lectures** include a 45-minute presentation by the lecturer and a 15-minute discussion, led by the moderator, between the lecturer and participants.

In **Interactive Experts Exchange** sessions, faculty members present evidence and preferred techniques. The audience provides their own input. Provocateurs elicit controversy from the audience by questioning the position of each speaker. The discussion concludes with a vote, showing changes in audience opinion.

Complex Case Discussions explore unconventional and challenging cases presented by three faculty who present three uncommon cases each. The cases increase in complexity to push forward the level of analysis. The audience engages in discussion with the panel in order to enrich the exchange and evaluate all possible approaches.

Debate Fora sessions encourage a lively discussion on controversial topics. A moderator leads the debate between two speakers. A short introduction is followed by a presentation on each opposing position. This year's Debate Fora sessions are titled "Cemented vs Cementless Primary THA" and "Infected Osteosynthesis—is Permanent Drainage an Option?"

In **Evidence Based Medicine** sessions, the organiser presents three questions related to a main topic and the audience answers. Faculty members analyse the results according to the literature review grades of recommendation (ATS Guidelines). The organiser and audience engage in a final discussion.

Symposia consist of three related presentations on one main topic, followed by discussions between presenters and the audience. Together with the moderator, the group concludes on the best practice. Symposia sessions cover a wide variety of topics, from how to get a paper published to the best approaches to femoral neck fractures.

For a complete list of session offerings, visit www.efort.org/vienna2017/scientific-content/advanced-scientific-programme.

***(Neyret,** continued from page 1)*

"Patients want to and can be active after osteotomies," said **Ronald Van Heerwaarden, MD.**

He discussed high tibial osteotomy (HTO) and studies that focused on the number of patients who returned to sports after HTO and when they returned to sports.

In a 2016 study by S. Ekhtiari and colleagues, 90% of patients returned to sports earlier than 1 year after HTO. Of those patients, 78.6% returned at an equal or higher level than before surgery, Van Heerwaarden said.

Results of a 2013 study by Bonnin and colleagues showed "young, motivated patients can resume strenuous activity following HTO," he said.

Van Heerwaarden explained overcorrection of deformity is unnecessary in soccer players because valgus alignment offers little advantage.

However, the advice an orthopaedic surgeon gives to patients can impact the outcomes in terms of sports activities, he said.

"There are confounding factors. You are one of them. Motivate your patient. In a motivated patient, return to sports is definitely higher."

René Verdonk, MD, PhD, said patient age and BMI appear to be important to return to sports after autologous chondrocyte implantation, microfracture, osteochondral autograft transfer system (Arthrex) and other cartilage repair techniques.

"Short-term vs. long-term return to sports depends on patients and treatment," he said.

Reference:

Neyret P, et al. Symposium: Return to sports after surgery for degenerative knee. Presented at 18th EFORT Annual Congress: 31 May - 2 June 2017, Vienna.

Disclosures:

Doral, Neyret, Van Heerwaarden, Verdonk and Zaffagnini report no relevant financial disclosures.

***(Matharu,** continued from page 1)*

the recent and serious concerns about potential manufacturing differences in more recent years," Matharu said.

Some of those problems led to edge loading and/or high friction, he noted.

In the first 4 years of the implantations, "there was no significant difference in failure rate between the early and late implantations," Matharu said.

"Seventeen percent of our cohort were failures, the majority of these being for [adverse reaction to metal debris] ARMD, which is unsurprising," he said, noting 72 patients (12.7%) had a failed THR due to ARMD.

Reference:

Matharu GS, et al. Paper #710. Presented at: 18th EFORT Annual Congress: 31 May - 2 June 2017, Vienna.

Disclosure:

Matharu reports no relevant financial disclosures.

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