16<sup>th</sup> EFORT Congress – 27 to 29 May 2015, Prague

# Osteoporotic hip fractures: Rising case numbers, older patients, more intricate treatments

The rate of osteoporotic hip fractures has increased by approximately two thirds in the past twenty years. The average age of the affected persons is rising, as studies presented at the 16<sup>th</sup> EFORT Congress in Prague indicate. Mortality after proximal femoral fractures remains high despite all therapeutic advances, and men have a greater mortality risk.

**Prague, 29 May 2015** – The rate of hip and femoral fractures is clearly rising, due to demographic developments and the increasing share of elderly persons in the overall population, as studies presented at the 16<sup>th</sup> EFORT Congress in Prague indicate. For instance, the prevalence of osteoporotic hip fractures rose by nearly two thirds in the past 20 years, as shown by an investigation by the Miguel Servet University Hospital of Saragossa. While 98 out of 100,000 persons within the population had osteoporotic hip fractures in 1989/1990, this figure had risen as high as 159 only 20 years later. The average patient age meantime rose from 80.3 in 1989/1990 to 82 years in the period of 2009/2010.

The EFORT Congress is the most important conference for orthopaedists and trauma surgeons at the European level, and is held by the European Federation of National Associations of Orthopaedics and Traumatology. "Infections in orthopaedics" is the main theme of this major scientific event, which attracts more than 7,000 participants from all over the world to the Czech capital.

### Higher rates of shifted cervical fractures and comminuted fractures

"We found not only a rise in the incidence and average age, but also a change in the structure of hip fractures. There has been a significant increase in shifted cervical fractures, comminuted fractures and unstable trochanter fractures in the past 20 years. On the other hand, the share of non-dislocated cervical fractures dropped", study author Dr Marina Angulo Tabernero stated. The increase in the frequency of cervical fractures in which hemi-endoprostheses (HEP) are used is the main factor responsible for rising hip surgery costs. "Elderly persons have higher morbidity rates and are very likely to require longer hospitalisation periods", the expert said.

The study examined changes in the morphology and average age of patients with various fracture types in a 20-year segment between the periods of 1989/1990, 1999/2000 and 2009/2010.

## High mortality rates after proximal femoral fractures

The prevalence of proximal femoral fractures is also on the rise, and the mortality rate associated with such fractures remains high. This is the conclusion of a study from Italy which was presented at the EFORT Congress. It investigated prognostic factors in correlation with mortality after proximal femoral fractures in 1,558 patients who were admitted to the Centre for Traumatological Orthopaedics in Turin between early 2005 and the end of 2012. "Following surgical fracture treatment, the mortality rate was at 4% after 30 days, 14.1% after six months, and rose to 18.8% after one year", study author Dr Federica Rosso explained. "Systemic inflammatory reactions and immobilisation after surgery are central causes of rising mortality rates after hip fractures."

Both age and the time of the surgical intervention influence mortality risks: "An age under 74 years correlated with a lower one-year mortality; this was also true for surgical interventions being performed within 48 hours after admission. However, no association with the surgery time was proven regarding the mortality rates after 30 days and six months. A higher six month and one year mortality rate was determined in men, particularly those with more than two comorbidities, than in women", Dr Rosso summarised the main study results.

## Early surgery time reduces mortality risk

The study underlines that "surgical interventions should take place within 48 hours after hospitalisation to lower the mortality risk. In any case, surgical interventions should take place within three calendar days after admission", said the expert. Small hospitals in particular find it a major challenge to perform surgery on proximal femoral fractures and hip fractures within a 48-hour deadline, in view of their rising prevalence. Dr Rosso: "Furthermore, many patients are taking anticoagulants, which may influence their suitability for surgery. Even though greater efforts are flowing into prevention, hip and femoral fractures will represent an increasing problem in elderly persons, therefore resulting in higher costs to the healthcare system."

#### **About EFORT**

The European Federation of National Associations of Orthopaedics and Traumatology (EFORT) is the umbrella organisation linking Europe's national orthopaedic societies. EFORT was founded in 1991 in the Italian Marentino. Today it has 45 national member societies from 42 member countries and twelve associate scientific members.

EFORT is a non-profit organisation. The participating societies aim at promoting the exchange of scientific knowledge and experience in the prevention and treatment of diseases and injuries of the musculoskeletal system. EFORT organises an annual congress, seminars, courses, forums and conferences within Europe. It also initiates and supports basic and clinical research.

**Sources:** EFORT 2015 Abstract Angulo Tabernero et al. Changes in Osteoporotic Hip Fractures Within a 20-Year Period; EFORT 2015 Abstract Rosso et al. Is Operative Delay Really Associated With Increased Mortality After Hip Intracapsular and Extracapsular Fracture? Analysis of 1558 Cases.