14th EFORT Congress 2013

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EFORT 2013: 7,500 orthopaedic specialists gather in Istanbul

Time to surgery and pre-fracture mobility are key survival factors after neck of femur fractures

Proximal femoral fracture is the most common cause of acute orthopaedic admission. Around one in ten patients die within 30 days of admission. A study from the UK presented at the EFORT Congress in Istanbul has identified new factors indicating which patients are most at risk, allowing for more targeted care before and after surgical intervention. The primary factor in reducing mortality is speed of surgical intervention.

Istanbul, 6 June 2013 – Time to surgery and pre-fracture mobility were identified as new factors to be significant pre-operative predictors of 30 day mortality after neck of femur fractures, according to new research from the UK, presented at the 14th Congress of the European Federation of National Associations of Orthopaedics and Traumatology (EFORT) in Istanbul. About 7,500 experts are discussing current developments in their field at this Congress.

70,000 hip fractures occur annually in the UK alone, with annual costs to health services of about £2 billion. A study by researchers from the UK and Sweden put the annual cost of hip fractures in six major European countries at over 15 billion euros. Around 10% of patients die within 30 days of admission. 30 day mortality is regarded as an important indicator of the quality of healthcare provided.

"Time to surgery and pre-fracture mobility were the new factors identified to be significant pre-operative predictors of 30 day mortality," said Mr. Manjunath Ramappa (Northumbria NHS Healthcare Foundation Trust and North Shields, UK), one of the authors of the new study. These factors had been considered important previously. "However they were not significant predictors in previous scoring systems," he said. "This could be due to changing population characteristics." The study meanwhile confirms that other factors used in previous scoring systems, such as age or gender continue to be significant predictors.

The study included all 1,157 patients with a proximal femoral fracture admitted to the NHS Trust from the beginning of April 2010 until the end of 2011. Ramappa said the study's conclusion that time to surgery needs to be upgraded as a significant predictor confirms recent trends in treatment of proximal femoral fracture.

The 10% 30 day mortality statistic reflects standards of care but also characteristics of the general population. It may be changes in these characteristics that lie behind the second significant pre-operative predictor identified by the study: pre-fracture mobility. "Certain population characteristics have been constantly changing in the UK," said Ramappa, "such as average BMI and average life expectancy which have been increasing. These factors have a tendency to decrease overall pre-fracture mobility. This could have led to pre-fracture mobility now becoming a significant pre-operative predictor of mortality. We think these factors are applicable across Europe as well."

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Men are more at risk

While gender has been recognised in the past as a factor in higher rates of mortality in cases of proximal femoral fracture, it is interesting to note that this remains the case. "Male patients tend to have more co-morbidities, especially pulmonary and cardiovascular co-morbidities, as compared to female patients," said Ramappa. "This could contribute to increased mortality rates in male fracture neck of femur patients."

Identifying at-risk patients to optimise care

Time to surgery is the factor identified by the new study that health care systems can immediately act on, where necessary, whereas pre-fracture mobility cannot be modified. This has clear implications. "In the current economic climate, resources need to be efficiently utilised," said Ramappa. "Resources such as a high dependency unit can be targeted to patients identified to have increased 30 day mortality, based on pre-operative predictors. Our pre-operative predictors are simple to use."

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 42 national member societies from 43 member countries and six 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 European congresses, seminars, courses, forums and conferences. It also initiates and supports basic and clinical research.

Source: EFORT Abstract 1283: Pre operative predictors of 30 day mortality following fracture neck of femur