Elderly with femoral neck fracture: analysis of falls and functional changes

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INTRODUCTION

According to the Portuguese Ministry of Health, there are in Portugal more than 9500 femoral neck fractures each year, which reach hospital expenses of around 52 million euros. The same source estimates the mortality from 20% to 30% over a year after fracture, referring to severe disability it reaches a prevalence of 40% in the same period. Scientific evidence points out that hip fractures tend to occur more often in the elderly, especially after age 85 (Marks, Allegrante, MacKenzie, & Lane, 2002), and are more common in women. There is an increased incidence of proximal femur fractures with age due to the increase of intrinsic factors and the decrease of functionality (Bloch et al., 2010) and the loss of mineral density and bone mass associated with aging (Wei, Wang, & Hwang, 2001). We believe that the description of the fall and its characteristics could improve our understanding of the biomechanics of this process.

OBJECTIVE

The objectives of this study were to assess the circumstances in which occurred falls resulting in fracture of the proximal end of the femur, identify intrinsic and environmental factors in the fall, to analyze the report of that event by the patient, so as to understand the biomechanics of fall and evaluate retrospectively the functional independence to perform activities of daily living before the fall and six months after hospital discharge.

METHOD

This research is a descriptive, longitudinal, prospective correlational study with a quantitative methodology. The sample consisted of 35 elderly patients at the first assessment and thirty in the second, all admitted to the trauma unit of the Bragança Hospital Unit, Portugal. Data collection took place between February and June 2014 and the second evaluation was conducted between August and December 2014. It was intended to assess the degree of recovery of functional ability after fracture of the proximal end of the femur, the fear of falling and characterize the falls. The instrument used for calculating the degree of functional recovery was the Katz index.

RESULTS

Of the sample studied 33.3% had femoral neck fracture and the remaining 66.6% had trochanteric, subtrochanteric and intertrochanteric fractures. Surgical treatment was instituted in 93.3%. The values of the Katz index decreased from 15.53 to 12.93 points. The degree of recovery of functional independence is significantly higher in patients who went under osteosynthesis with hip prosthesis, whether it was partial or total.

CONCLUSION

The variables that most influenced the functional recovery were: the type of fracture and the type of osteosynthesis in the elderly, especially after age 85 (Marks, Allegrante, MacKenzie, & Lane, 2002). Studies show that about 30% had fallen. Of these, 20% patients operated with early menopause. A visual deficit of more than twice. Patients operated with hip prosthesis had higher functional recovery capacity values. The degree of recovery of functional independence is significantly higher in patients who went under osteosynthesis with hip prosthesis, whether it was partial or total.

REFERENCES