



Original Article

Influence of proximal femur fractures in the autonomy and mortality of elderly patients submitted to osteosynthesis with cephalomedullary nail[☆]

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ABSTRACT

Objective: To determine the autonomy and mortality of elderly patients submitted to proximal femoral osteosynthesis with cephalomedullary nail after hip fracture.

Methods: Retrospective study with 61 patients with proximal femoral fractures submitted to cephalomedullary nail osteosynthesis. The authors analyzed the medical records and collected information from the preoperative period. Patients were questioned regarding pain, postoperative autonomy, and degree of satisfaction. The total number of deaths was verified. The results were then correlated.

Results: The mean age was 84 years, predominantly female (82%). In the postoperative evaluation, 45% of the patients presented worsened levels of autonomy. The majority of patients presented mild pain (61%) on the VAS scale. The mortality rate was 24.6%, and the mean time of preoperative hospitalization was three days. The factors that presented statistical significance regarding postoperative autonomy were the time elapsed from the trauma until the moment of surgery, ASA score, fracture stability, and previous functional status of the patients. The mortality rate was associated with three main factors: advanced age, ASA score, and preoperative hospitalization time.

Conclusion: The patient's previous autonomy positively influenced the functional outcome and postoperative recovery. Unstable fractures presented worse results for pain and ambulation in a follow-up of 27 months. Hip fracture is a risk factor associated with mortality and decreased independence in patients over 65 years of age.

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Influência das fraturas do fêmur proximal na autonomia e mortalidade dos pacientes idosos submetidos a osteossíntese com haste cefalomedular

R E S U M O

Palavras-chave:

Fraturas do quadril
Fraturas do fêmur
Vida independente
Deambulação
Idoso

Objetivo: Determinar a autonomia e a mortalidade de pacientes idosos após fratura do quadril submetidos a osteossíntese do fêmur proximal com haste cefalomedular.

Métodos: Estudo retrospectivo com 61 pacientes com fratura do fêmur proximal submetidos a osteossíntese com haste cefalomedular. Os prontuários foram analisados e os registros clínicos do pré-operatório foram coletados. Os pacientes foram reavaliados e perguntados em relação a dor, autonomia pós-operatória e grau de satisfação. Foi verificado o número total de óbitos. Os resultados foram então correlacionados.

Resultados: A média de idade foi de 84 anos, com predominância do sexo feminino (82%). Na avaliação pós-operatória, 45% dos pacientes apresentaram piora em seu nível de autonomia. A maioria dos pacientes apresentou dor leve (61%) pela escala EVA. A taxa de mortalidade encontrada foi de 24,6% e o tempo médio de internação pré-operatória foi de três dias. Os fatores que apresentaram significância estatística quanto à autonomia pós-operatória foram o tempo decorrido do trauma até o momento da cirurgia, escore ASA, estabilidade da fratura e estado funcional prévio do paciente. A taxa de mortalidade foi associada a três fatores principais: idade avançada, escore ASA e tempo de internação pré-operatória.

Conclusão: A autonomia prévia do paciente influenciou positivamente o resultado funcional e a recuperação pós-operatória. Fraturas instáveis apresentaram piores resultados para dor e deambulação em um seguimento de 27 meses. A fratura do quadril é um fator de risco associado à mortalidade e diminuição da independência em pacientes acima de 65 anos.

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Introduction

The incidence of proximal femoral fractures has increased significantly in the last decades and is expected to double within the next 25 years, due to increasing life expectancy. Older age and associated comorbidities are responsible for high morbidity and mortality, as well as higher costs of treatment and hospitalization.¹ Among proximal femoral fractures, the transtrochanteric fracture is an important group, since they are common and usually affect debilitated and elderly patients.^{2,3} These fractures are defined as those occurring in the area extending from the extracapsular region of the base of the femoral neck to a proximal region along the minor trochanter.⁴

This type of fracture is common in the elderly population due to osteoporosis, and is mainly associated with low-energy trauma, such as fall from their own height. It is estimated that nine out of ten trochanteric fractures occur in individuals older than 65 years.^{5,6}

Hip fracture is a devastating injury in elderly patients, affecting their physical, mental, functional, and social function. It reflects the aging process of the population, and has permanent consequences on patient survival and independence.

Surgical stabilization is the option of choice to manage trochanteric fractures, regardless of deviation type or pattern. The goal of surgical treatment is to achieve stable reduction

and fixation, allowing early active and passive mobilization. Since elderly individuals are not always able to walk without placing some load on the fractured limb, due to the pre-existing conditions, fracture stabilization must be sufficient to allow a certain load tolerated by the patient.⁷

Studies demonstrate that up to 50% of patients with proximal femoral fractures die within the first six months after trauma, and that many patients submitted to surgical treatment do not regain their baseline function and independence.⁸

This study aimed to determine the autonomy and mortality of elderly patients who underwent proximal femoral osteosynthesis with cephalomedullary nail after hip fracture.

Methods

A longitudinal, retrospective, and descriptive study was performed with 61 patients with proximal femoral fracture who underwent osteosynthesis with cephalomedullary nail from March 2012 to March 2014, at the Hospital de Ortopedia e Traumatologia, Rio de Janeiro, TijuTrauma.

Patients' medical records were analyzed and information from the pre-operative clinical records (clinical evolution and surgical risk) was collected.

The following data were collected: age; sex; preoperative time; fracture severity (according to the Tronzo I to V classification); preoperative American Society of Anesthesiologists

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