



## Hemiarthroplasty in intertrochanteric fracture femur

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Editorial Note

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Abstract

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Intertrochanteric femur fractures are becoming more common in the aged population, accounting for 45 percent of all hip fractures and being the leading cause of morbidity and mortality in the elderly.

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According to several classifications, intertrochanteric fractures of the femur can be split into two groups: stable intertrochanteric fractures and unstable intertrochanteric fractures. In addition to instability, osteoporosis and comminution can develop in the elderly population. The goal of treatment of any intertrochanteric fracture of femur in elderly is to make patient mobile early and reducing associated complications of prolonged immobilization.

## EDITORIAL

Rapid mobilization of these elderly patients results in decreased morbidity and mortality. In earlier time, treatment of intertrochanteric fracture was mainly conservative in the form of prolonged bed rest in sustained traction for minimum of 12 weeks, but due to prolonged immobilization in bed this treatment resulted in complications like bed sores, urinary tract infection, pneumonia, thrombo embolic complications resulting in high morbidity and mortality. Along with these complications there also occurred fracture related complications like malunion of fracture and shortening resulting in difficult ambulation of patient.

For these reasons later on treatment of intertrochanteric fracture mainly shifted towards fixation with devices like dynamic hip screw and Juwet nail plates. Stable fractures can be easily treated with osteosynthesis with good results however, the management of unstable intertrochanteric fractures. An elderly patient is a challenge because of difficulty in obtaining anatomical reduction and prolonged time taken for fracture healing resulting in delayed mobilization of patient. An incision is created over the exterior of the hip during a hip hemiarthroplasty. The implant is used to replace the fractured ball (femoral head). The socket of the pelvis would be replaced as part of a standard hip replacement procedure. In individuals with pre-existing hip arthritis, this can be done, but in most femoral neck fractures, the socket is left alone. Patients with thinner, more osteoporotic bone can have the prosthetic stem cemented into the bone, whereas those with higher bone quality can have it press-fit.

Biologic and biomechanical changes that occur in osteoporosis make the management of fractures more difficult.

Cortical bone becomes thin, cancellous bone has reduced bone mineral density and changes in trabecular pattern. Thus implant fixation is compromised.

In case of comminuted fractures in cancellous areas fixation of all fragments is difficult and posteromedial void in this region makes the fracture very unstable and internal fixation fails in this type of fracture.

In these patients however, osteoporosis, and instability often preclude the early resumption of full weight bearing. In an effort to mobilize these patients more rapidly, permit early weight bearing and to avoid complications of immobilization, hemiarthroplasty has been used to treat unstable intertrochanteric fractures.

The purpose of this study is to determine whether hemiarthroplasty is a treatment of choice for elderly patients in unstable intertrochanteric fracture to reduce mortality and morbidity, and also to study time of mobilization after hemiarthroplasty along with complications associated with it.