Abstract

ANALYSIS OF RESULTS AND OUTCOME OF ARTHROSCOPY ASSISTED MANAGEMENT OF TIBIAL PLATEAU FRACTURES

INTRODUCTION:

Tibial plateau fractures are one of the commonest periarticular fractures in the knee joint. These fractures include 1% of all fractures. Each fracture type has its own morphology, treatment considerations and prognosis. Apart from bony injury, meniscal tear and ligament injuries are associated with this type of fractures. The treatment of tibial plateau fractures has completely changed from conservative treatment with casting to anatomical reduction and surgical fixation. Successful results depend on anatomical reduction, restoration of ligamentous stability, treatment of concomitant injuries and preservation of soft tissue envelope. Additionally, good visualization of the articular joint surface with minimal dissection of soft tissue can help in achieving this goal. Arthroscopy-assisted fixation suggested, to improve the quality of the reduction of the articular surface and must be combined with rigid fixation with a plate or external device.

METHODS AND MATERIALS:

We studied 18 patients with tibial plateau fractures classified according to Schatzker classification who got admitted in Rajiv Gandhi Government hospital, Madras medical college Chennai. All patients underwent Arthroscopy Assisted tibial plateau fracture fixation. Arthroscopy was done for assessing the fracture depression pre-reduction and soft tissue injuries were evaluated. Reduction of articular surface is assessed using arthroscopy.

RESULTS:

A total of 17 patients were available for final evaluation of final outcome. According to Modified Rasmussen criteria Clinical assessment in our study, 11 (61.1%) patients had excellent outcome, 1 (5.5%) patients had fair outcome, 3 (16.6%) had poor outcome. According to Radiological assessment of the same criteria 11 (64.7%) patients had excellent outcome, 3 (17.6%) had good outcome, 3 (17.6%) percent had fair outcome. No patients had poor outcome. In our study 4 (22.2%) patients developed wound infection postoperatively. 1 (5.5%) patient went against medical advice and it was considered lost follow-up. Remaining three patients had superficial infection who are treated with antibiotics for 6 weeks, wound wash and debridement. They didn’t require any further plastic surgery procedure. Due to persistent deep infection implant exit
was done for 1 patient (5.5%). Two patients (11.7%) developed varus deformity which was not affecting the daily living life.

CONCLUSION:

Arthroscopic evaluation of fracture reduction without an extensive arthrotomy incision and also enables optimal treatment of concomitant lesions. In complex tibial plateau fractures, the use of arthroscopy by an experienced surgeon can minimize the surgical trauma. Arthroscopic assisted fixation of tibial plateau fractures is a reliable and safe method for the treatment of tibial plateau fractures, especially when they present with concomitant injuries. This study found excellent to good results as per Modified Rasmussen’s clinical and radiological score at short term follow in all Schatzker types of tibial plateau fractures.

KEY WORDS: Arthroscopy Assisted, Tibial plateau fracture, Arthroscopic fixation of tibial plateau fractures.