CRITICAL ANALYSIS OF FUNCTIONAL & RADIOLOGICAL OUTCOME OF TIBIAL CONDYLE FRACTURE TREATED BY INTERNAL FIXATION

A Prospective Study

ABSTRACT

BACKGROUND: The tibial plateau is one of the most critical load bearing areas in the human body; fractures of the plateau affect knee alignment, stability, and motion. Knee being one of the major weight bearing joints of the body, fractures around it will be of paramount importance.

AIM OF THE STUDY: This study is to analyze functional and radiological outcome of tibial condyle fractures treated with internal fixation CRIF or ORIF with or without bone grafting prospectively and to compare the outcome based on radiological criteria and functional criteria

MATERIALS AND METHODS: 30 cases of tibial plateau fractures treated by various modalities were studied from May 2015 to Sep 2017 at our institution and followed for a minimum of 6 months. Fractures were evaluated using Modified Rasmussen’s Clinical, Radiological grading system.

RESULTS: The selected patients were evaluated thoroughly and after the relevant investigations, were taken for surgery. The fractures were classified as per the SCHATZKER’S types and operated accordingly with CRIF with Percutaneous cannulated cancellous screws, ORIF with buttress plate/LCP with or without bone grafting. Immobilization of fractures continued for 3 weeks by POP slab. Early range of motion was then started. Weight bearing up to 6-8 weeks was not allowed. The full weight bearing deferred until 12 weeks or complete fracture union. The knee range of motion was excellent to very good, gait and weight bearing after complete union was satisfactory, knee stiffness in 3 cases, wound dehiscence and infection in 1 case and non-union in none of our cases was noted.

CONCLUSION: Functional outcome is better in operatively treated tibial plateau fractures in adults, because it gives excellent anatomical reduction and rigid fixation to restore articular congruity and early motion thereby preventing knee stiffness.

KEYWORDS: Tibial Plateau, Battress Plate, Internal Fixation, Proximal tibia.