Moore Type I Posteromedial Tibial Plateau Fracture

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INTRODUCTION:

Various classification schemes have been used to describe tibial plateau fractures, the most common of which is the Schatzker classification, which rely solely on plain radiographs, mainly in the anteroposterior (AP) plane. Moore type I posteromedial fracture of proximal tibia is uncommon. It is a specific fracture pattern that is not well described by Schatzker classification. Hohl and Moore classification is useful for fracture patterns that cannot be classified by Schatzker classification, fracture dislocation and fractures associated with knee instability.

REPORT:

A 29-year-old gentleman, with no known medical illness, joint abnormality or ligament laxity was brought to hospital after injuring his left knee in a motor-vehicle collision. Physical examination revealed a swollen, deformed and tender left knee. The motor function, sensation and distal pulses were intact. X-ray and CT revealed an unusual posteromedial tibial plateau fracture with a sheared fragment (Figure 1).

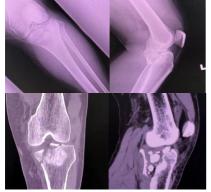


Figure 1: Moore type 1 tibial plateau fracture.

Surgery was performed after the knee swelling has subsided. Patient was placed in prone position and a posteromedial reversed L-shaped incision was utilised. The medial gastrocnemius tendon was identified and partially released to expose the underlying popliteus muscle. Subperiosteal dissection was carried out until the fracture was visible and Hohman retractor was placed to protect the neurovascular bundle. The fracture was reduced by extending the knee and a T-shaped posteromedial locking plate was placed in a buttress fashion. Postoperative radiographs demonstrated near anatomic reduction (Figure 2).

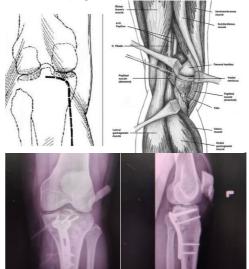


Figure 2: Osteosynthesis of the fracture via posteromedial reversed L-shaped approach.

Postoperatively, patient was allowed to ambulate using non-weight bearing crutches and an increasing knee range of motion exercise was commenced as tolerated.

CONCLUSION:

This case was unusual because it presented a shear-type variation of the posteromedial tibial plateau fracture which cannot be categorized into the standard Schatzker classification. CT is necessary to understand the fracture configuration and helps in surgical planning. Surgery should be considered for such injuries to obtain adequate anatomical reduction and maintenance of joint congruity.

REFERENCES:

1. Alexander B, et al. Classification system for tibial plateau fractures 2010;Pg173-8.