

## A Study Of The Functional Outcome Of Tibial Plateau Fractures Schatzker Types III, IV, V And VI Treated With Internal Fixation Under Arthroscopic Guidance

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### INTRODUCTION:

The Tibial plateau is one of the critical load-bearing areas in the human body. This study deals with the functional outcome of tibial plateau fractures Schatzker types III, IV, V & VI treated with internal fixation under arthroscopic guidance. The study also assesses the various clinical factors affecting the functional outcome of tibial plateau fractures and correlates the radiological findings with functional outcome.

### METHODS:

The study is a Prospective observational study done from March 2013 to June 2015. The patient data were collected from 35 study subjects using a validated proforma. The functional score was evaluated as per The Knee society score and Rasmussens radiological scoring system. Arthroscopy was used to assess the joint depression and post fixation evaluation.

### INCLUSION CRITERIA

All adults >18 year old patients  
Patients sustaining TYPE III, IV, V, VI Schatzker fractures

### EXCLUSION CRITERIA

Previously bed ridden and those with congenital deformities and neurovascular deficits of ipsilateral lower limb.  
Patients with ipsilateral lower limb fractures.

**RESULTS:** In our study out of 35 patients the most common type of fracture was type III Schatzker followed by type V. The Knee society functional score and Knee society knee score assessed at 6 months showed a

good to excellent outcome of 56% and 68% respectively. It was observed that as we moved from Schatzker types III to VI, the functional score deteriorated.

The Rasmussen's Radiological Score at 6 months showed a good score for 84% and an excellent score for 8%. The association between the condylar widening and functional score was found to be significant (p value 0.04). The Knee Society Score and The Rasmussen's Radiological Scores had a percent agreement of 24%. Superficial wound infection and wound dehiscence was found to be a significant complication seen more in complex tibial plateau fractures.

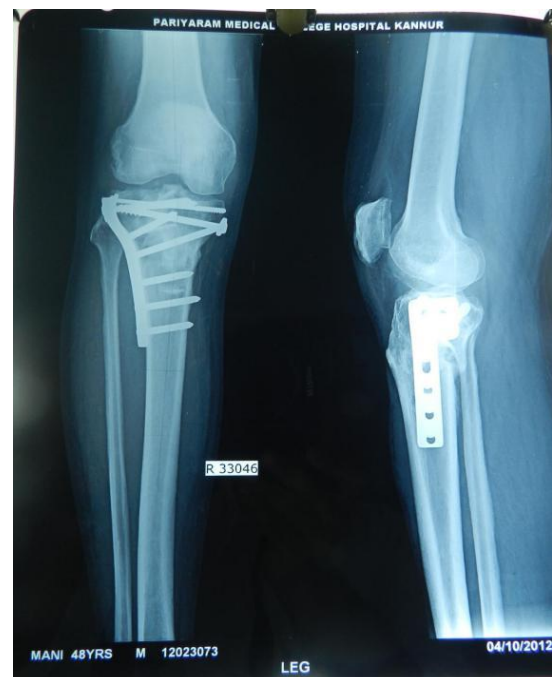


Fig 1 POST OP X RAY

CONDYL WIDENING	kss functnl at 6months		
	2	3	4
<b>0</b>	0	7	2
	0.00%	77.78%	22.22%
<b>1</b>	4	7	2
	30.77%	53.85%	15.38%
<b>2</b>	3	0	0
	100.00%	0.00%	0.00%

TABLE 1 RELATIONSHIP BETWEEN CONDYLAR WIDENING AND FUNCTIONAL SCORE **Fisher exact - 9.4 , p value 0.02**

**CONCLUSION:**

Schatzkertype III (36%) dominated the study followed by type V (28%). Tibial plateau fractures (Schatzker type III, IV, V and VI) treated surgically by Internal fixation showed a good and excellent Knee society knee score in 68% In the study 84% had good and 8% excellent results in Rasmussens radiological scoring system. Higher the grade of injury (Schatzker V & VI) more is the chance of getting a poor outcome. Persistence of condylar widening had a less favorable functional outcome. Post-operative wound breakdown and infection are among major complications. The radiological and functional scoring was found to have a percentage agreement of 24%.