Use Of Ilizarov External Fixation In Tibial Plateau Fractures – A Study Of Ten Cases

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INTRODUCTION:

Anatomical reduction, stable fixation, and early mobilization are important in managing tibial plateau fractures successfully. However, due to soft tissue compromise, internal fixation of these injuries has a high risk of infection and the resulting complications of non-union, stiffness, and pain. By using Ilizarov external fixation, these risks may be reduced. This paper studies the bony and functional outcomes of ten cases of tibial plateau fractures treated with the Ilizarov technique.

METHODS:

Ten consecutive cases of tibial plateau fractures treated with Ilizarov external fixation in HTAR from 2015 to 2017 are selected. Using information from the case files, the outcomes of these cases are measured using the ASAMI scoring system.

RESULTS:

The cases range from 28 to 68-years-old, with 9 males and 1 female. All are sustained through motor-vehicle-accidents with 9 open fractures and 1 closed. There are 6 cases of Schatzker VI, 1 Schatzker V, 1 Schatzker IV, and 2 Schatzker II. The average time to bony consolidation and full-weight-bearing is 7.9 months with all achieving union without infection. The table shows the outcomes based on the ASAMI scoring system.

ASAMI scoring system	**Percentage of cases**
Bony results	
Excellent	60%
Good	30%
Fair	10%
Poor	-
Functional results	
Excellent	20%
Good	70%
Fair	-
Poor	10%
Failure	-

DISCUSSIONS:

Internal fixation of tibial plateau fractures is usually applied to achieve stabilization, but it has a high complication rate due to extensive soft tissue dissections. Monolateral external fixation, while having low soft tissue complications, does not give adequate stability. The Ilizarov technique, using ring external fixators, provides satisfactory fixation and stabilization, while preserving soft tissue integrity. 90% of the cases in this paper showed either excellent or good outcomes in both bony and functional results.

CONCLUSION:

Tibial plateau fractures should be treated with Ilizarov external fixation as this technique provides satisfactory outcomes with reduced risk of soft tissue complications.

REFERENCES:

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