Arthroscopic Repair of Paediatric Tibial Spine Avulsion Injury

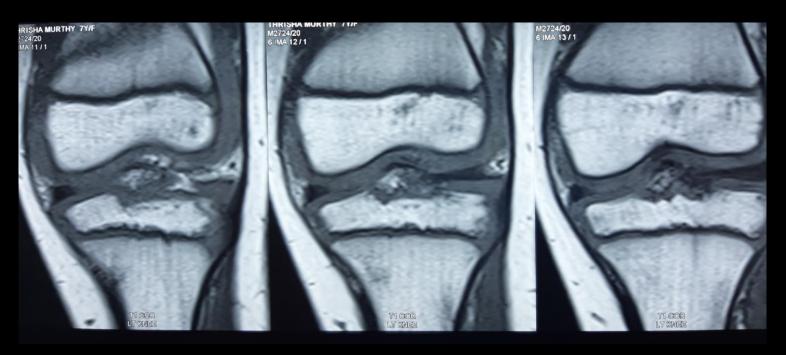
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- Introduction: Tibial spine fractures are relatively uncommon injuries that typically occur at the base of the tibial spine. While these injuries can occur in adults, they are more common in skeletally immature patients between ages 8-14. They have classically been associated with a hyperextension injury to the knee. Tibial spine fractures are ACL equivalent injuries, and should be operatively managed if displaced. We present our series of patients successfully managed arthroscopically using fibre wire fixation.
- Material and method: 4 cases of ACL avulsion fracture in paediatric population were managed with arthroscopic repair using fibre wire. All patients were evaluated clinically and radiologically at regular pre-, post-operatively and at follow-up.
- Operative procedure: Standard knee arthroscopy is performed with anterolateral and anteromedial portals by the same surgeon. Reduction and fixation with suture: The fibre wire suture is tied to the ACL near the base of its insertion on the fragment with the help of suture passer. Anatomic reduction was performed by pulling down the suture. The suture was tied over the tibial cortex. The final tension of the ACL is confirmed under direct arthroscopic visualization. Postoperative immobilisation was done in an above knee cast for 4 weeks. After 4 weeks patient underwent physio and rehabilitation.

Pre op



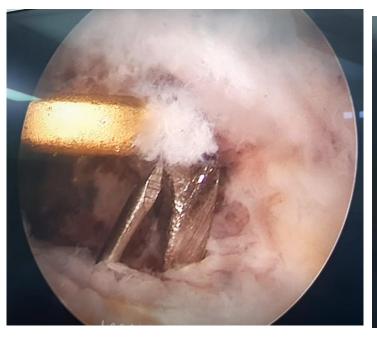


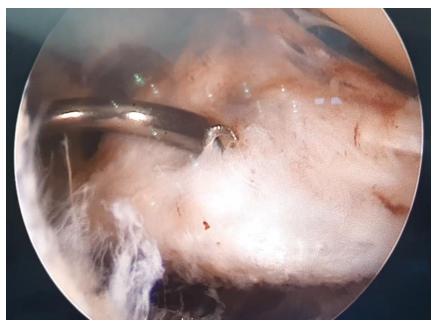




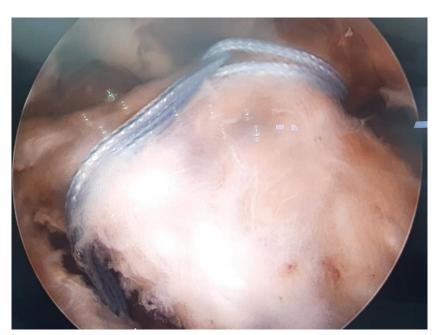


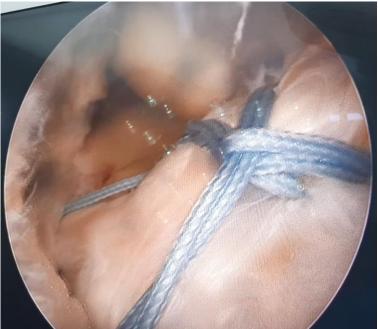


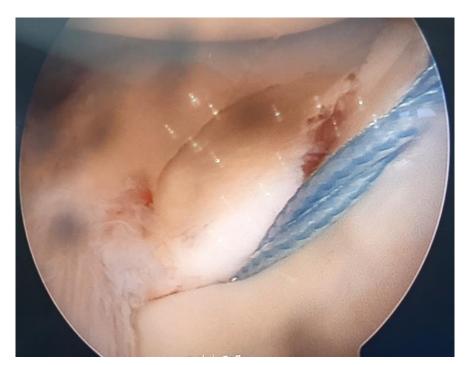












Immediate Post op

1 month post op





Results: All patients had good union of the tibial spine avulsion radiologically. They had good range of motion and showed no clinical instability. There was no obvious insult to growth plate on follow-up.

CONCLUSION: Arthroscopic repair of Tibial spine avulsion injury with fibre wire provides a good union and functional outcome