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ADOLESCENT TIBIAL EMINENCE AVULSION FRACTURE TREATED WITH ARIF: A CASE REPORT IN HUSM

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INTRODUCTION:

Poncet in 1875 described tibial eminence (tibial spine) fracture as a bony avulsion of the anterior cruciate ligament (ACL) at its insertion on the intercondylar eminence[1].
Mostly affecting skeletally immature patients between the ages of 8 and 14 and are responsible for 2% to 5% of knee injuries in children and 14% of ACL injuries[1,2]. In light of these issues, the treatment of tibial eminence fractures is essential for the recovery of knee functionality, resumed participation in sports, and general quality of life

REPORTS:

We are reporting a case of a 14-year-old teenager who sustained pain and swelling of the left knee after accidentally twisting his left knee onto the ground while playing football. He was unable to weight-bearing and came to our clinic a week after the injury. On examination significant knee joint effusion was demonstrable and the knee range of motion was limited due to pain. Plain knee radiograph showed avulsion of left tibial eminence Meyers and McKeever type IIIA. Arthroscopic reduction and internal fixation (ARIF) were performed. The fracture fragment of the avulsed ACL was sutured to the tibial ACL footprint with two loops of 2.0 Ethibond. A tibial tunnel was made using a 2.0mm drill-bit and both Ethibond loops were tied together to the tibial cortex. A cylinder cast was applied postoperatively and was kept for 4 weeks. At clinic follow-up after 1 month, reduction and fixation were maintained radiologically and the patient was sent for knee motion rehabilitation.

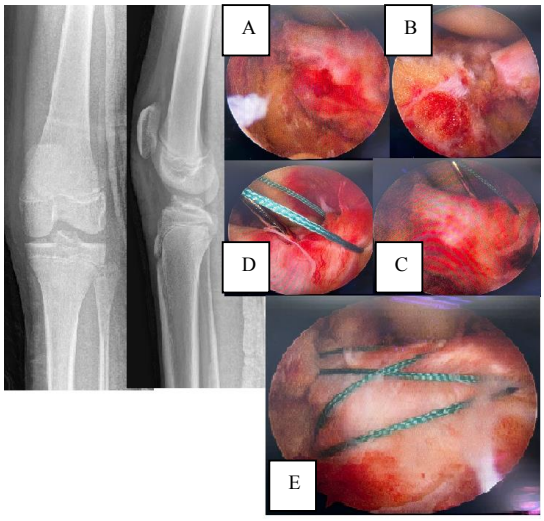

Figure 1: Preoperative radiograph (type IIIA tibial eminence avulsion fracture). Complete tibial eminence avulsion fracture (A). Debridement and preparation of ACL footprint on tibia (B). Ethibond suture passed through avulsed ACL (C), (D), Final fixation with 2 loops Ethibond (E).

CONCLUSION:

Although many ARIF techniques have been described in the literature, the best technique has not yet been determined because of the paucity of comparative studies. The surgical technique advocated and implant materials used must be tailored to the patient's factor, types of fracture patterns, and surgeons' preferences and familiarity.

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