Isolated Juvenile Tillaux Fracture: A Case Report

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Citation

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Abstract

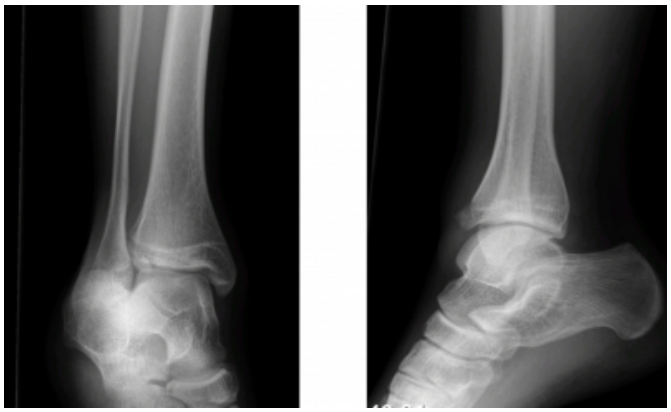
Tillaux fractures are relatively uncommon Salter- Harris type III fractures involving avulsion of the anterolateral tibial epiphysis. We present the case of a 16 year old boy who sustained and isolated Tillaux fracture and discuss it management.

CASE REPORT

A 16 year old boy attended the Accident and Emergency department with an injury to his right foot. He sustained the injury while wrestling, after his opponent landed on his right foot. A “crack” was heard and he was unable to weight bear. On examination there was mild swelling around the ankle joint and tenderness over the lateral malleolus. The skin was intact and there was no neurovascular deficit. Radiographic images of his right foot are shown below (Fig 1).

Figure 1

Figure 1: Radiographes showing isolated Tillaux fracture.



A diagnosis of Tillaux fracture was made and the patient was scheduled to undergo open reduction and internal fixation. Following an anterolateral incision, the fragment was identified, reduced and fixed with a fully threaded 45mm cancellous screw

(Fig. 2). The patient was immobilised with below knee cast and was instructed to non-weight bear with crutches for 4 weeks. Post-operative plans include progressive weight bearing after 4 weeks and removal of the screw once the fracture has healed.

Figure 2

Figure 2: Intraoperative images showing stabilisation of the fracture by cancellous screw

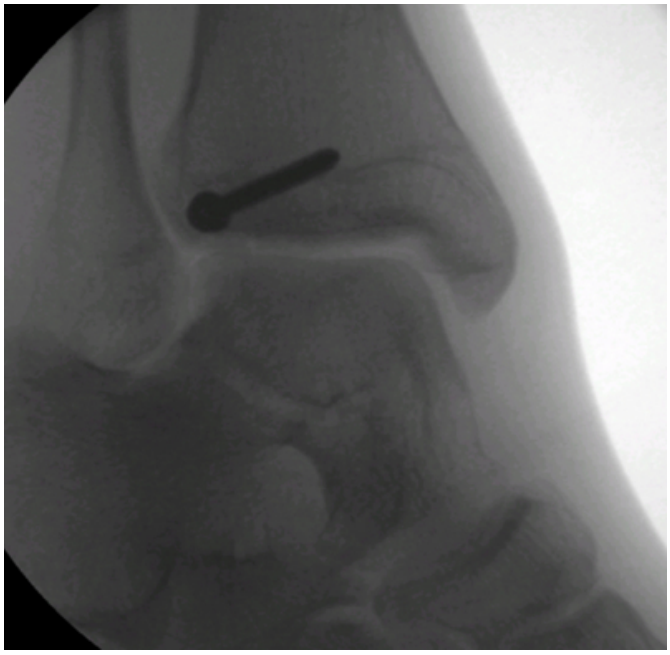


Figure 3

DISCUSSION

Tillaux fractures are uncommon Salter Harris type III fractures of the anterolateral part of the tibial epiphysis. They usually occur in children between 12 and 15 years of age, after the middle and medial parts of the epiphyseal plate have closed but before the lateral part closes.[1] The mechanism of injury involves external rotation and extension of the foot leading to avulsion of this physeal fragment due to excessive tension of the tibio-fibular ligament.[2]

Tillaux Fractures may be managed conservatively with closed reduction (i.e. internal rotation of the ankle and foot supination) but any element of displacement should not be acceptable.[3] Fractures associated with displacement > 2mm with rotation of the fragment should be managed operatively.[4]

References

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