

Isolated Tillaux Fracture In Adolescent:A Rare Injury

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INTRODUCTION:

Adolescent Tillaux fracture is defined as a Salter-Harris type III epiphyseal fracture, because the distal lateral tibial growth plate is still unfused. It occurs during transition period when the medial and central physis has fused but the lateral physis is still growing. This fracture is caused by external rotational injury resulting in avulsion of anterior tibiofibular ligament from its tibial attachment. It is usually rare in adults because the ligaments fail before bone fails.

CASE REPORT:

A 13 year old female presented with injury to her left ankle after a fall while walking down the stairs at school. Physical examination revealed swelling and tenderness on her left ankle associated with limited range of motion of the ankle joint. Radiographs of the right ankle revealed an avulsion fracture of the anterolateral lip of the tibial plafond. The anterolateral fragment was intra-articular and displaced. The patient underwent open reduction and internal fixation through an anterolateral approach, using a 3.5-mm lag screw. Postoperatively, the ankle was protected in a backslab for 1 week; thereafter, the ankle was mobilized and subjected to progressively increasing motion. Weightbearing was allowed to resume at 6 weeks postoperatively. A normal gait had been achieved by 12 weeks postoperatively. At the final follow-up visit, the clinical and radiographic assessments revealed the fracture to be well consolidated without any complications. Also, the patient was asymptomatic, with no pain or restriction of ankle movement.



Figure 1 shows the ankle xray taken after the injury.



Figure 2 shows ankle xray at 12 weeks post-operative.

DISCUSSION:

The diagnosis of Tillaux fracture poses a diagnostic challenge and often missed in healthcare centres. On standard AP and lateral radiographs, the fractures cannot be easily detected because of superimposition. Oblique views can be helpful in identifying the Tillaux fracture. However, radiographic sensitivity for Tillaux fracture is only 50%. CT scan of the ankle is recommended if clinical findings are suggestive. The treatment of the Tillaux fragment with compression screws in the case of displacement of >2 mm which achieves anatomical reduction, rigid fixation and early mobilization gives good prognosis.

REFERENCE:

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