A Peculiar Case of Split Plate

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INTRODUCTION:

Distal femoral epiphyseal fractures are uncommon and are responsible for 1–6% of all physeal injuries and less than 1% of fractures in children. Motor vehicle accidents and sports-related injuries are reported as the most common causes. In this case report, we discussed the presentation, diagnosis, management and outcome of the patient.

REPORT:

A 14 years old boy with no known medical illness presented with motor vehicle accident while riding his motorbike. He collided with a car infront and fell over his left side.Post trauma, he unable to ambulate and complained of pain over left knee. On local examination, joint effusion seen with tenderness over lateral epicondyle region of left femur together with limited range of motion over left knee. Xray releaved epiphyseal plate separation at left distal femur concurrent with Salter-Harris type 1. Later on, early surgery was done for close manual reduction and percutaneous k-wiring of the left distal femur. Intraoperatively, four kwire size 3.0mm was used to secure and stabilize the fracture. 3 weeks later, during clinic review, all k-wires were removed after follow up xray reviewed. Postoperative 10 weeks, he had excellent recovery and able to ambulate unaided without any pain, in addition to full range of motion of the left knee. Radiographically shows united fracture with no residual angulation or displacement.



Figure 1: Post trauma Xray



Figure 2: Postoperative 10 weeks

CONCLUSION:

Salter-Harris I fractures of the distal femur in children are relatively uncommon injuries with significant implications for limb alignment and future growth.² Salter-Harris type I fractures had the lowest incidence of growth disturbance (36%).¹ Therefore, restoration of normal limb alignment requires fracture reduction and fixation in a near-anatomic position, without risking further damage to the growing physis.²

REFERENCES:

- 1. Ali Aydin, ¹Murat Topal, ¹ "Salter-Harris Type III and Type IV Combined Fracture of the Distal Femoral Epiphysis: A Case Report"
- **2.**Kevin M. Neal "Salter-Harris I Fracture of the Distal Femur"