

Tibial Eminence Fracture

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History

10 year old soccer player with posttraumatic knee pain.

Diagnosis

Tibial Eminence Fracture

Discussion

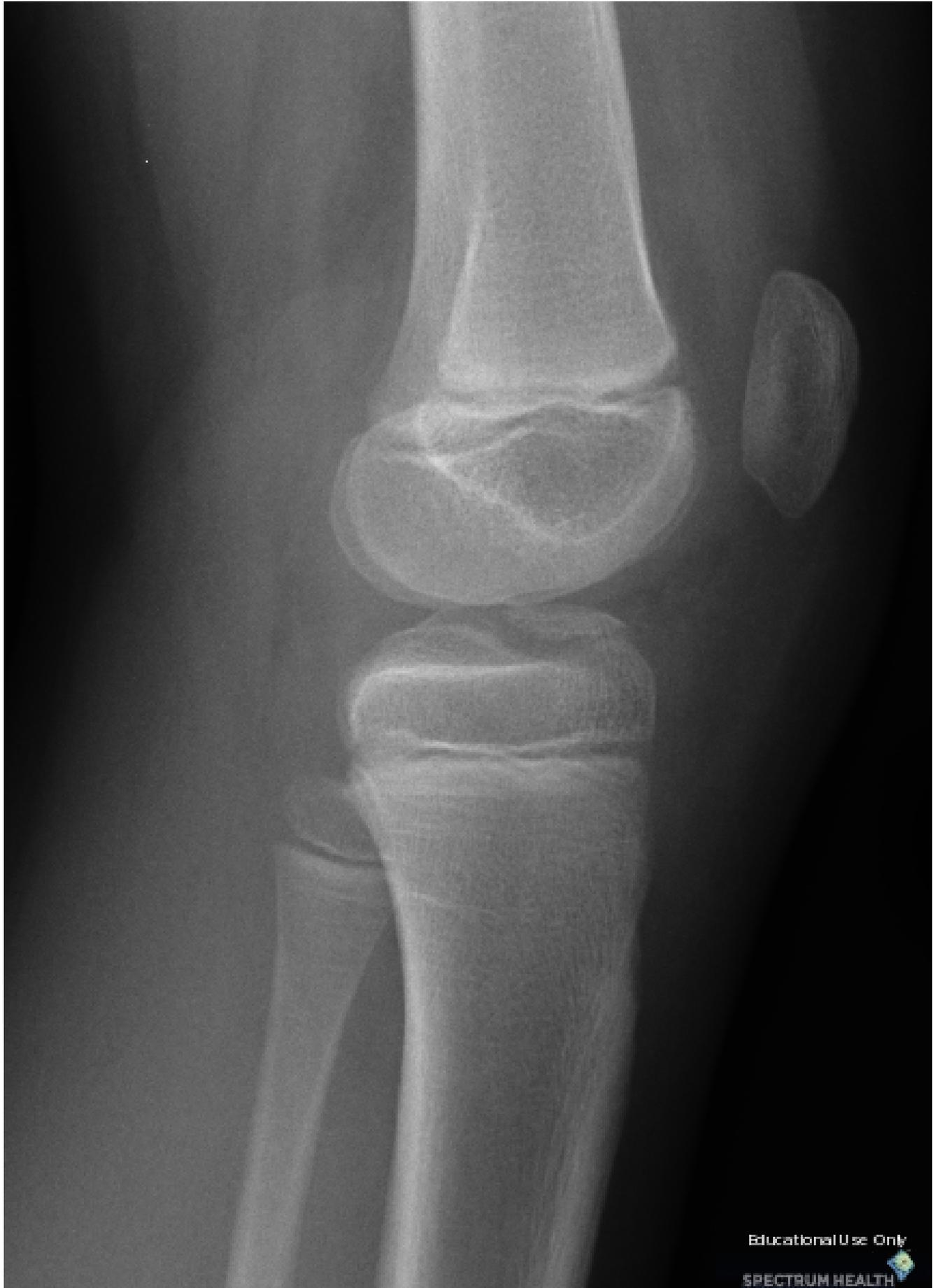
Although most ACL tears involve the midsubstance of the ligament, avulsion of its tibial attachment occurs fairly commonly in skeletally immature patients. Tibial eminence fractures are most commonly seen in children and adolescents aged 8 to 14 years. The tibial eminence is a nonarticular portion of the proximal tibia that lies between the condylar surfaces of the medial and lateral tibial plateau. Displaced fractures of the tibial eminence may result in loss of biomechanical function of the ACL, leading to instability. It is thought that tibial eminence fractures are caused by slower loading conditions than midsubstance ACL tears. A smaller ratio of the notch width to the width of the distal femur may predispose children to this injury. The Meyers and McKeever classification system is descriptive with clinical implications: Type I fractures are nondisplaced, with excellent bony apposition and the potential for healing, Type II fractures are characterized by anterior cortical displacement, with an intact posterior cortex acting as a hinge. Type III fractures are completely displaced and devoid of bony apposition (Type IIIA involves only the ACL footprint whereas Type IIIB involves the entire tibial eminence), Type IV is comminuted. Type I injuries are treated conservatively. Types II, III and IV require internal fixation.

Findings

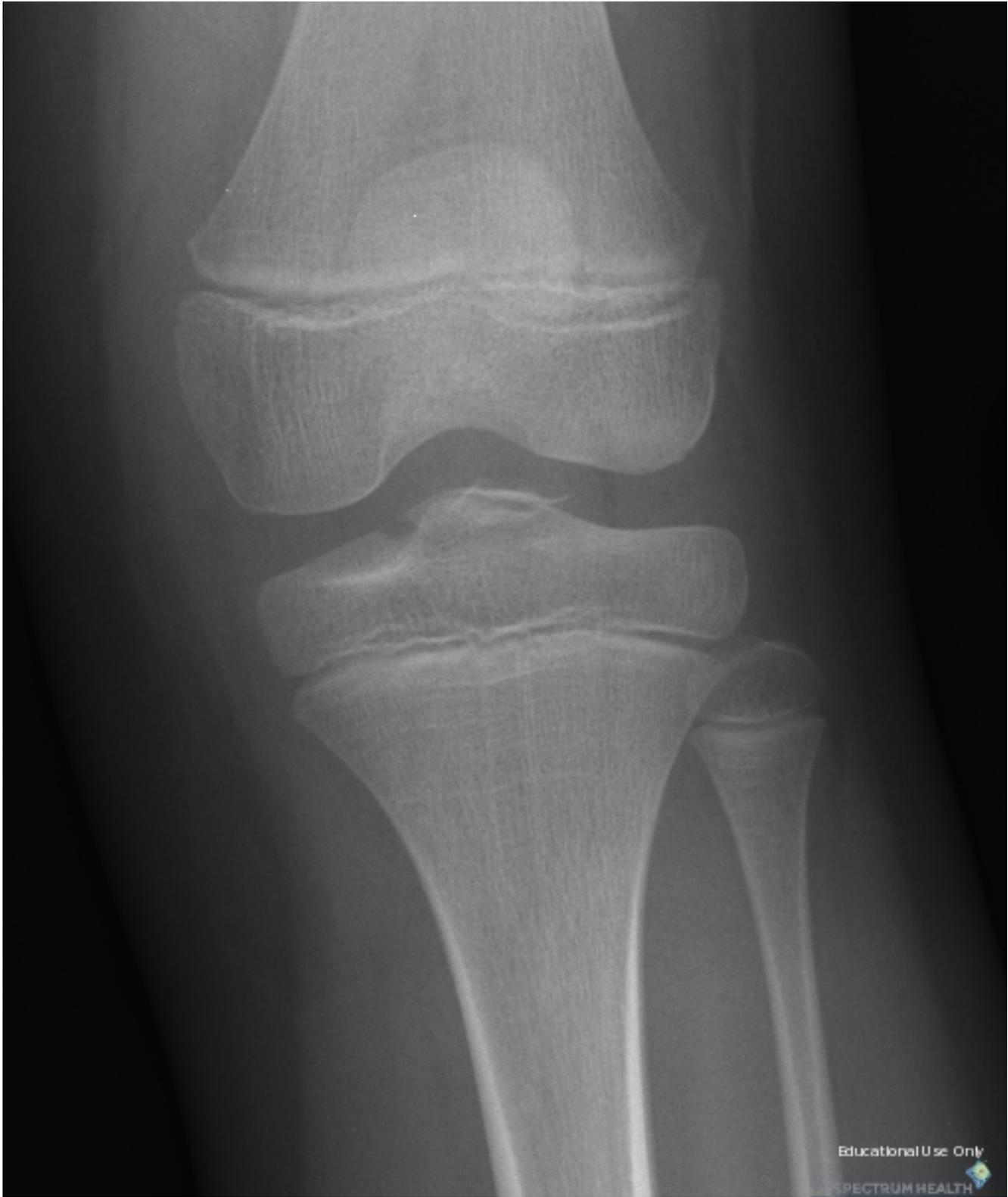
CR-Nondisplaced transverse fracture of the entire tibial eminence.

Reference

LaFrance RM, Giordano B, Goldblatt J, et al. Pediatric Tibial Eminence Fractures: Evaluation and Management. J Am Acad Orthop Surg (2010); 18(7):395-405.

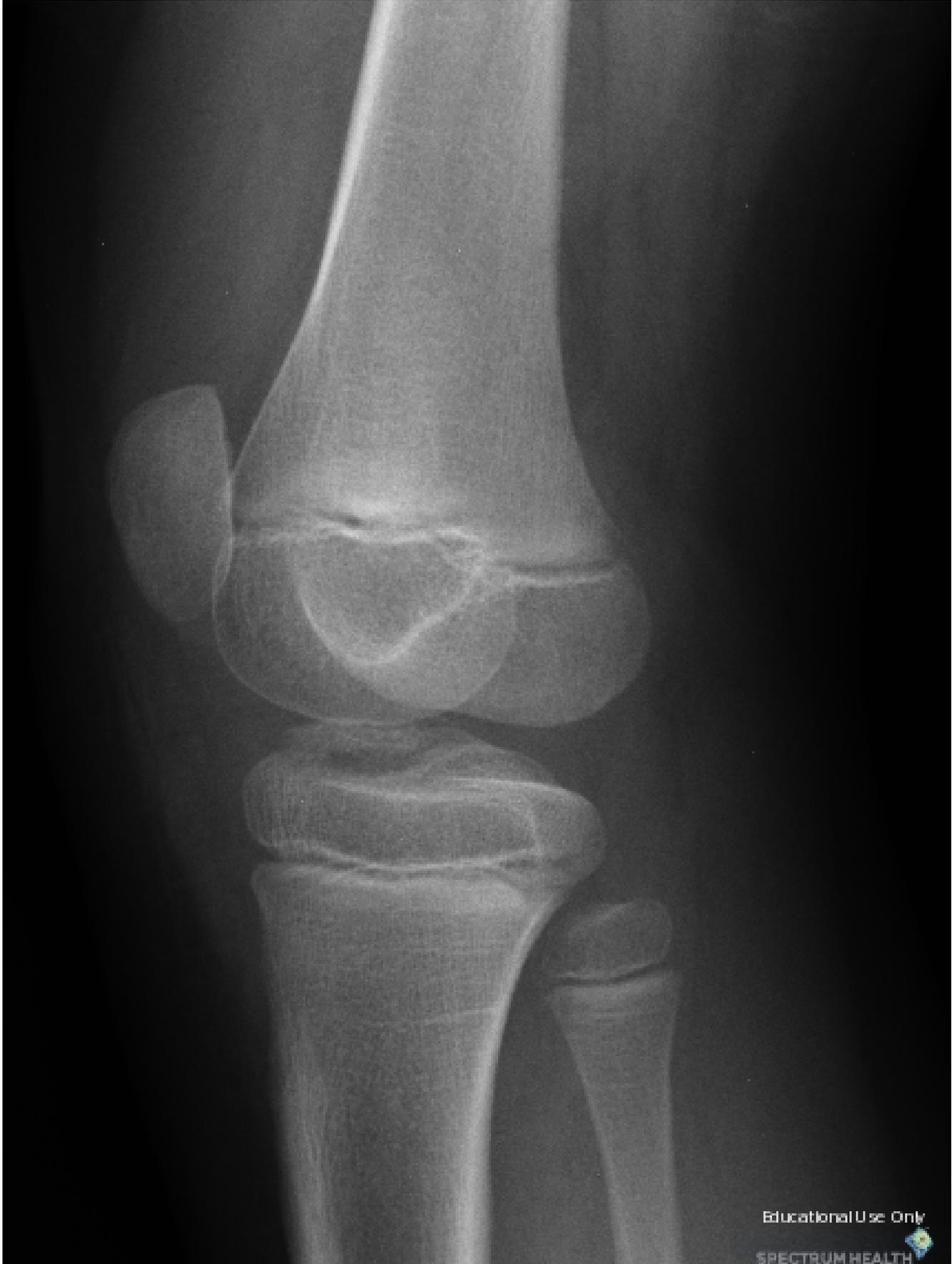


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