



UNIVERSITY of
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MEDICAL CENTER

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DEPARTMENT OF IMAGING SCIENCES

Imaging Sciences Interesting Cases

CASE 56

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CLINICAL PRESENTATION: A 2-year-old child refused to bear weight on right leg.

IMAGING FINDINGS: Nondisplaced spiral fracture of the distal tibial metaphysis.



Figure 1: PA projection depicts an oblique fracture through the distal tibial metaphysis.

DIAGNOSIS: Toddler's Fracture

DISCUSSION: Toddler's fracture is a common fracture in very young children. The inciting trauma typically involves a twisting fall in a young child learning to walk. The episode of trauma is often not witnessed and the impact force may be low. Plain radiograph findings may be subtle due to the nondisplaced nature of the fracture. If the fracture is suspected clinically and the initial radiographs are normal, follow-up radiographs in 7-10 days following immobilization will often reveal a previously occult fracture.

The differential diagnosis includes non-accidental trauma. Defining features of non-accidental fracture of the tibia are location and appearance of the fracture. Non-accidental fracture characteristically involves the midshaft of the tibia with a more transverse or oblique orientation. Most frequently, non-accidental trauma of the tibia results in classic metaphyseal lesions or corner fractures.

REFERENCES:

1. Green NE, Swiontkowski MC (Eds.). Green: Skeletal Trauma in Children. 3rd ed., Philadelphia, Saunders, 2003.