

A Painful Ankle and An Extra Bone

Woo HM; Norazian K.

Orthopedic Department, Faculty of Medicine and Health Sciences University Putra Malaysia.

INTRODUCTION:

A secondary ossification centre below the medial malleolus may be mistaken for a fracture. A case of a young girl presenting with atraumatic chronic medial ankle pain is described to highlight this rare condition.

REPORT:

A healthy 8 year-old girl presented with left medial ankle pain for 3 months. Her involvement in martial arts had recently increased but she denied any history of injury to her ankles or feet.

Clinically, she had normal gait and no limp. She had bilateral flat feet which was corrected on tip-toeing.

On examination, there was no ankle swelling but tenderness was elicited on palpation at tip of her left medial malleolus. Bilateral ankle range of motion was full.

Left ankle radiographs (Figure 1.) revealed a rounded bony fragment at tip of medial malleolus that had a separate ossification centre from the medial malleolus. Both distal tibia and fibula physal lines are unfused.

She was diagnosed with symptomatic secondary ossification centre of left medial malleolus and was treated conservatively.

Secondary ossification centre (SOC) of the medial malleolus is a rare normal variant of the developing medial malleolus with prevalence of 20% unilaterally and 13% bilaterally in children aged 6-12. They are largely asymptomatic but repetitive stress can trigger pain. The SOC usually ossifies at age 8-9 years and fuses with the medial malleolus by age 11-years. Failure of fusion may lead to formation of an accessory bone - os subtibiale.

Figure 1:



Fig 1: Plain radiographs of left ankle AP and lateral view: An approximately 2mm well-rounded fragment at the tip of medial malleolus suggesting secondary ossification centre of medial malleolus.

CONCLUSION:

Ankle pain in children due to symptomatic secondary ossification centres should be differentiated from avulsion fractures to avoid unneeded immobilisation and surgery.

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