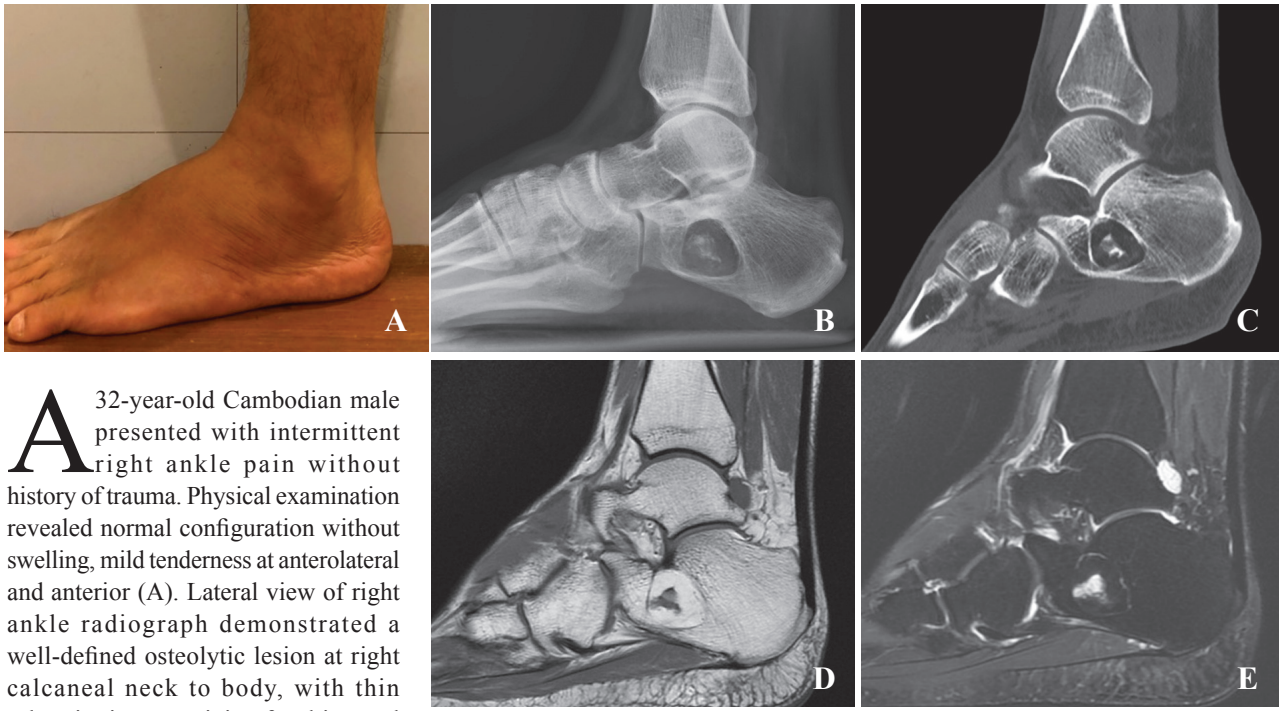
Medical Image

Intraosseous Calcaneal Lipoma

Thanis Saksirinukul, MD
Imaging Center, Bangkok Hospital Headquarters, Bangkok, Thailand

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A 32-year-old Cambodian male presented with intermittent right ankle pain without history of trauma. Physical examination revealed normal configuration without swelling, mild tenderness at anterolateral and anterior (A). Lateral view of right ankle radiograph demonstrated a well-defined osteolytic lesion at right calcaneal neck to body, with thin sclerotic rim, containing focal internal dystrophic calcification, without adjacent cortical breakthrough (B). There is a diffuse fat density in the lesion on non-contrast computed tomography (CT) (C), corresponding to additional magnetic resonance imaging (MRI) findings; bright T1W signal (D) with signal drop on fat suppression sequence, and small surrounding vascularity (E). Intraosseous calcaneal lipoma was diagnosed.

The fat component is the key of imaging findings. CT and MRI are diagnostic modalities, able to demonstrable fat component; fat density (-60 to 100 hounsfield unit-HU) on CT, bright T1W and T2W signals as subcutaneous fat with signal drop on fat suppression sequences, but mildly brighter signal than fatty marrow, due to cellularity of marrow. Bone expansile remodeling could be also seen.[1]

Intraosseous lipoma is very rare benign bone tumor, approximately 0.1 to 2.5% of all benign bone tumors.[2] The first reported case of intraosseous lipoma was in 1910. Most of the patients with intraosseous lipoma are asymptomatic and the bone tumor is found incidentally.[2] Some authors believe that tumor associated with pain. The tumor can occur in all age groups, but is usually found at the age of 40, and more observed in males than females.[1,2] Normally there is no treatment for asymptomatic patients with intraosseous lipoma, some can evolve as extensive fat necrosis, calcification and cystic change, but if there is some suspicion of malignancy, tissue diagnosis and surgery treatment is available.[1-3]

References

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