

Hypertrophic Osteoarthropathy

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Financial Disclosures: None reported.

Support: None reported.

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Submitted May 8, 2015; accepted May 22, 2015.

A 58-year-old man presented with a 2-month history of left knee pain. He had no history of trauma. Radiographs of the left knee revealed solid, minimally undulating periosteal reaction circumferentially, most notably along the distal femur (image A). There was no fracture, joint effusion, or additional underlying osseous abnormality. A chest radiograph revealed a 5-cm right upper lobe mass (image B), which was determined to be a moderately differentiated invasive adenocarcinoma. The periosteal reaction involving the femur was compatible with secondary hypertrophic osteoarthropathy (HOA) related to a primary lung malignancy. The patient was referred to oncology for further evaluation and management.

Hypertrophic osteoarthropathy is a syndrome characterized by clubbing and periostitis. Secondary HOA (previously referred to as *hypertrophic pulmonary osteoarthropathy*) is most commonly associated with primary lung malignancies, particularly non-small cell lung carcinoma.¹ Periosteal reaction involving long bones in adults (without antecedent trauma or an underlying osseous lesion) should raise concern for secondary causes of HOA, such as lung disease. (doi:10.7556/jaoa.2015.153)

Reference

1. Rana RS, Wu JS, Eisenburg RL. Periosteal reaction. *AJR Am J Roentgenol*. 2009;193(4):W259-W272. doi:10.2214/AJR.09.3300.

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