



Images in Clinical Rheumatology

Digital Clubbing: A Patient With Hypertrophic Osteoarthropathy and the Presence of Acro-osteolysis[☆]



Hipocratismo digital: paciente con osteoartropatía hipertrófica y presencia de acro-osteólisis

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A 75 year-old male with a history of type 2 diabetes, with bilateral infracondylar amputation, chronic obstructive pulmonary disease with respiratory insufficiency and home oxygen therapy. He was admitted due to respiratory infection, and in the physical examination strikingly large bilateral acropachies were found (Fig. 1). The patient mentioned gradual thickening of the distal fingers during more than 10 years, without ever having felt pain in the said joints. A hand X-ray was requested (Fig. 2A). An X-ray of his right foot (in 2008) showed similar findings (Fig. 2B), compatible with hypertrophic osteoarthropathy (HOA).

The acropachies and the HOA seem to be different stages of the same process, involving increased angiogenesis with arterial-venous anastomosis, perivascular lymphocytic infiltrate, distal accumulation of collagen fibres and interstitial oedema that cause the bulbous deformation of the fingers. There is also increased osteoclast-osteoblast activity that would explain the bone alterations.

Primary hypertrophic osteoarthropathy is a rare hereditary disease that appears during infancy or adolescence. It predominantly

occurs in males, at a ratio of 7:1, and it is more common in Afro-Americans.¹ The secondary form may be generalised or localised in 1 or 2 extremities, manifesting by cyanosis of the limbs due to persistent arteriosus ductus, aneurisms, hemiplegia or infectious arthritis.²

The differential diagnoses to be taken into account in adult patients are: drugs (voriconazole), systemic inflammation (psoriatic arthritis, reactive arthritis), metabolic diseases (thyroid acropathy, vitamin A hypervitaminosis, fluorosis), malignity (multifocal metastatic disease, lymphoma or leukaemia), infection (multifocal osteomyelitis, syphilis), vascular disease (venous insufficiency, systemic vasculitis).¹

There are 2 radiological of HOA, one with bone neoformation that commences in after puberty in patients with lung disease, and another with acro-osteolysis, which starts in infancy and is associated with congenital cyanotic cardiopathies. The second pattern predominates in the case described, making it an unusual case.

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Figure 1. Large bilateral acropachies.

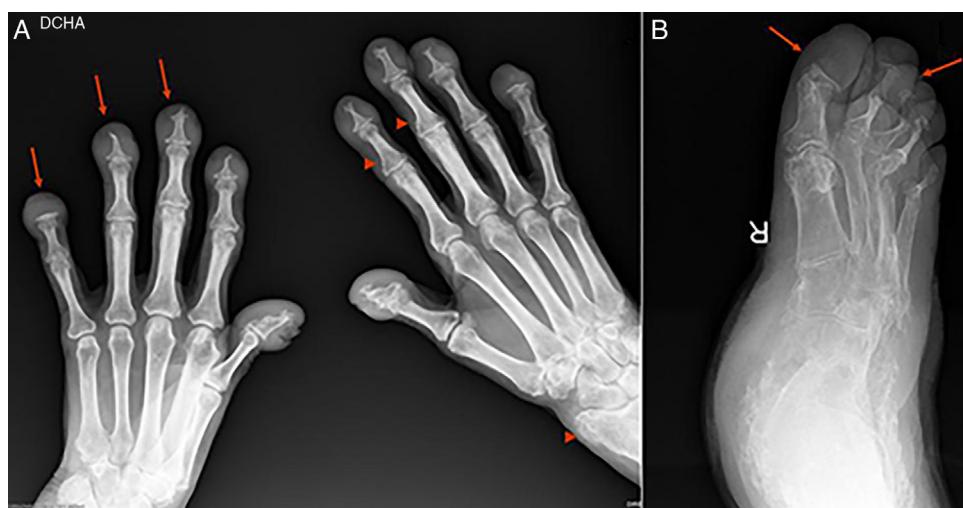


Figure 2. (A) Anteroposterior X-ray of both hands. Thickening of the soft tissues at the level of the distal fingers. Marked destructive changes with acro-osteolysis in all of the distal fingers (arrowed), with formation of flat surfaces in both the fifth fingers, bone proliferation at the level of the left radius and more discretely at the base of several distal fingers (arrow points). (B) Oblique X-ray of the right foot. Re-absorption of all of the distal toes with formation of flat surfaces (arrowed).

Conflict of interests

The authors have no conflict of interests to declare.

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