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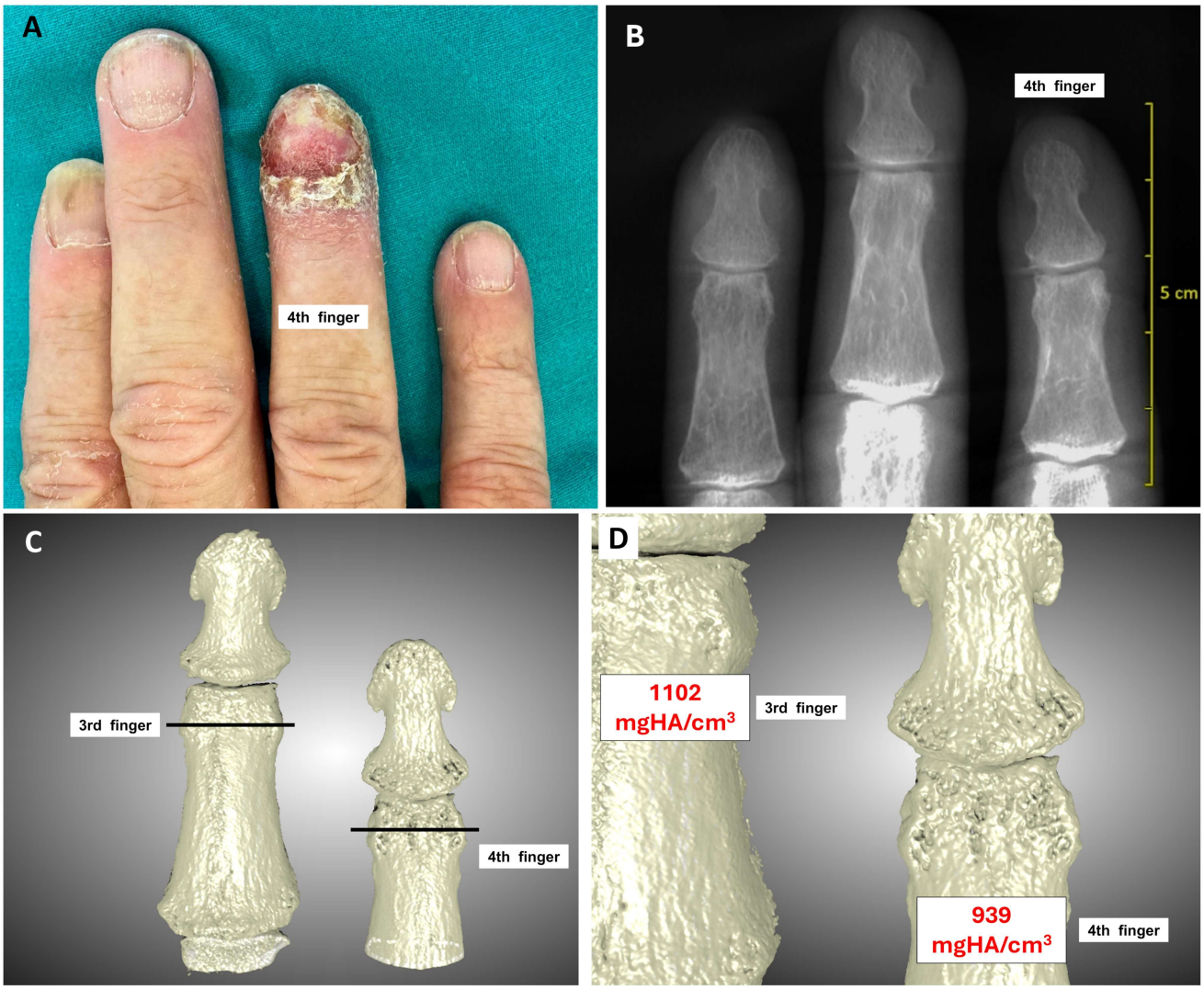
Clinical Images: Local bone loss in a patient with acrodermatitis continua of Hallopeau



The patient, a 77-year-old man, presented with a longstanding history of acrodermatitis continua of Hallopeau (ACH) and failure of multiple treatments, all of which provided only partial and transient benefits. Physical examination revealed erythema, crusting, and swelling, with complete destruction of the nail plate on the affected digit (A). A standard radiograph of the hands was unremarkable (B). Because of the severity of pain and suspicion of bone involvement, high-resolution peripheral quantitative computed tomography (HR-pQCT) was performed on the distal II, III, and IV digits using an ARTiCAT scanner (RAR Srl). The scanning region was set 5 mm below the joint space of the distal interphalangeal joint extending to a region of interest of 10 mm (black lines) (C). Standard HR-pQCT parameters were measured at both affected and nonaffected digits using standardized procedures and proprietary software provided by the manufacturer. We found approximately a 15% reduction in total volumetric bone mineral density (vBMD) (D), cortical vBMD, and trabecular vBMD and failure to load at the affected digit compared to the unaffected digits ($P < 0.001$ with Welch's analysis of variance). ACH is a chronic inflammatory condition with shared pathophysiologic mechanisms with psoriatic disease. ACH primarily involves the nail unit, with potential progression to underlying structures, including bone loss and osteitis.[1,2] Standard radiography may not show bone demineralization beneath the affected digits.[1] Localized bone loss in ACH is likely secondary to chronic inflammation and anatomic continuity between the nail apparatus and

underlying bone. Although bone involvement in ACH has been reported, HR-pQCT imaging and its clinical implications remain underexplored. This case highlights the importance of advanced imaging modalities in assessing bone health in patients with severe ACH, particularly those presenting with significant pain or functional impairment.

The patient gave written informed consent to publication of his case details. Patient consent forms were not provided to the journal but are retained by the authors.

Author disclosures are available at https://onlinelibrary.wiley.com/doi/10.1002/acr2.70164.

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