Primary or Secondary Synostosis: The Culmination of the Spondyloarthritis Form of Erosive Arthritis?

To the Editor:

When are synostoses congenital in origin and when are they secondary in origin, and the result of fracture healing or an inflammatory process? Maharaj and Chandran1 suggested the publication of the first documented case of synostosis in psoriatic arthritis (PsA), a form of spondyloarthropathy (SpA). However, synostoses are well represented in the SpA record2,3,4, and perhaps even facilitate consideration and recognition of the underlying pathology5,6. Fusion of proximal radioulnar and tibiofibular joints are not only documented in current patients with SpA7, but have been documented in SpA-afflicted individuals in the archeologic and paleontologic record3,4,8. Recognized in anatomical collections (e.g., Terry collection from the earliest 20th century, curated at the National Museum of Natural History, Smithsonian Institution, Washington, DC, USA), the archeologic record documents about a 5% prevalence of this phenomenon among individuals with SpA3,4,6,9. A classic example is in the Tate Museum Columbian mammoth (Casper, Wyoming, USA). It clearly had erosions characteristic of SpA, but none present at the fused joint.

Synostoses appear to be part of the pathogenesis of the erosive joint disease characteristic of PsA10, so identification of synostosis in an individual with SpA does not necessarily indicate a congenital origin.

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