Unusual and memorable

Case Number 21: Series editor: Gary D Wright

A 53 year old woman presented with a one year history of a painful swollen left ankle which prevented full weight bearing. She attributed this to an episode of minor trauma in which she tripped and twisted the ankle. Radiologically there was no evidence of bony injury at the time of the incident.

Her past medical history included Crohn's disease, which had necessitated a small bowel resection for a stricture in 1982 but which had been quiescent for many years apart from a mild anal stricture not requiring surgical intervention. She was a lifelong non-smoker.

Clinically, there was marked soft tissue swelling and exquisite tenderness over the lateral aspect of the ankle joint. Unilateral toe clubbing in the same foot was also seen but no evidence of clubbing elsewhere (fig 1). True ankle and subtalar joint movements were unrestricted. She was not cyanosed and no abnormalities were detected in either the respiratory or cardiovascular systems. Digital rectal examination disclosed a small anal stricture.

Figure 1

Plain radiographs demonstrated a normal ankle joint but marked periosteal reaction around the distal tibia and proximal fibula (fig 2). A subsequent technetium ³³P isotope bone scan showed unilateral uptake within the distal shafts of the left tibia and fibula together with uptake in the left great toe (fig 3). Magnetic resonance imaging confirmed periosteal new bone formation with surrounding tissue oedema but no evidence of infiltrative pathology within the marrow cavity. Routine blood tests showed haemoglobin 129 g/l (normal 115–165), white cell count 7.59×10^9 (normal differential), erythrocyte sedimentation rate 40 mm/1st h, C reactive protein 3.1 mg/l, α_1 glycoprotein 1.3 g/l (normal 0.47–1.25), and alkaline phosphatase 137 U/l (normal 42–121). The autoantibody screen, pANCA, and cANCA profiles were negative. Serum complement and chest radiography were normal.

Hypertrophic osteoarthropathy is a rare extra-articular manifestation of Crohn's disease and has been well documented in the literature.^{1–4} There appears to be no reported evidence of one limb being affected and, in particular, no mention of isolated presentation in one leg. Characteristically, it is bilateral and more commonly affects the hands. The laboratory indices in this case do point to mild activity of this patient's inflammatory bowel disease despite little clinical evidence to support this. Typically, hypertrophic osteoarthropathy tends to correlate with disease activity, but equally it has been noted in cases where the underlying bowel inflammation is quiescent.⁴

- 1 Collins CE, Cahill MR, Rampton DS. Clubbing in Crohn's disease. *BMJ* 1993;307:506.
- 2 Olm M, Fuster J, Visa J. Finger clubbing, inflammatory bowel disease and circulating vasodilators. *Dis Colon Rectum* 1989;32:176.
- 3 McAllister C, McNulty JG, Fielding JF. Is hypertrophic osteoarthropathy really so rare in regional enteritis? *J Clin Gastroenterol* 1986;8:562–6.

Figure 2

Figure 3

- 4 O'Neill S, Ryan M, Fielding JF. Hypertrophic pulmonary osteoarthropathy and regional enteritis. *Ir J Med Sci* 1981;150:385–6.

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