

Acute Presentation of Arthritis Mutilans

LEANN BELL, MB, MRCPI, Registrar in Rheumatology; CLAIRE-LOUISE MURPHY, MB, MRCPI, Specialist Registrar in Rheumatology; BAIRBRE WYNNE, MD, MRCPI, Consultant Dermatologist; GAYE CUNNANE, MB, FRCPI, PhD, Consultant Rheumatologist, St. James's Hospital, and Senior Lecturer in Medicine, Trinity College, Dublin, Ireland. Address correspondence to Dr. G. Cunnane, Department of Rheumatology, St. James's Hospital, Dublin 8, Ireland. E-mail: gcunnane@stjames.ie. J Rheumatol 2011;38;174-5; doi:10.3899/jrheum.100579

Arthritis mutilans (AM) is a rare condition that develops in approximately 5% of patients with psoriatic arthritis (PsA)¹. It is characterized by marked osteolysis, resulting in the classic “pencil-in-cup” radiographic appearance and clinical evidence of digit shortening. We describe a patient who developed AM after many years of psoriasis.

A 34-year-old woman, with psoriasis for 21 years, presented with a 3-month history of worsening rash and foot pain. Examination revealed extensive erythroderma and skin scaling. Her feet were swollen, with shortened toes and subluxed metatarsophalangeal joints (Figure 1). Radiographs confirmed AM (Figure 2). Other joint areas were normal apart from her left hand, which showed a flexion deformity of the fifth distal interphalangeal joint. Adalimumab resulted in improvement in her rash and foot pain. However, she retained difficulty in walking.

The somewhat paradoxical bony changes that occur in PsA include severe osteolysis, bone proliferation, and absence of periarticular osteoporosis². Varied cytokine balances resulting in unique proteolytic environments may underlie these different presentations³. Although cyclic cit-



Figure 2. Radiograph of feet demonstrating changes of arthritis mutilans, with subluxation of the metatarsophalangeal joints, osteolysis, and “pencil-in-cup” deformities.



Figure 1. Reduction in foot size by 1.8 cm from peak of adult foot length (European size 7, 25 cm) to current foot length (European size 5, 23.3 cm). Note extensive erythroderma and shedding of copious skin flakes from psoriasis.

rullinated peptide antibodies have been suggested as potential biomarkers in AM¹, they were negative in this patient. Magnetic resonance imaging has demonstrated higher bone proliferation and edema scores in AM compared with other forms of PsA². Interestingly, such changes do not correlate with clinical indices of disease activity, suggesting that AM is a silent process². This case, like others in the literature, highlights the late presentation of AM. Epidemiological studies of AM may help to identify prognostic markers at an earlier stage in the disease course.

ACKNOWLEDGMENT

We thank Anthony Edwards, clinical photographer, St. James's Hospital, for his expertise in acquiring the clinical image.

REFERENCES

1. Helliwell PS. Established psoriatic arthritis: clinical aspects. *J Rheumatol* 2009;36 Suppl 83:21-3.
2. Tan YM, Ostergaard M, Doyle A, Dalbeth N, Lobo M, Reeves Q, et al. MRI bone oedema scores are higher in the arthritis mutilans form of psoriatic arthritis and correlate with high radiographic scores for joint damage. *Arthritis Res Ther* 2009;11:R2.
3. Kuroda T, Tanabe N, Sakatsume M, Nozawa S, Mitsuka T, Ishikawa H, et al. Interleukin-2 levels are elevated in the bone marrow serum of patients with mutilans-type rheumatoid arthritis. *Clin Rheumatol* 2002;21:23-7.