RHEUMATOLOGY

# Letter to the Editor (Case report)

doi:10.1093/rheumatology/kex294

## Osteitis as a manifestation of familial Mediterranean fever

**Rheumatology key message**

- Unifocal osteitis with fever may be a new manifestation of FMF.

Sir, FMF is the most common autoinflammatory disease characterized by recurrent self-limited attacks of fever, sterile serositis, arthritis and erysipelas-like erythema [1]. Non-canonical manifestations of FMF are increasingly recognized in recent years, such as calf pain, vasculitides and neurological disease. Herein, we describe unifocal osteitis in an FMF patient who responded well to anakinra.

A 40-year-old Turkish female patient was previously diagnosed with FMF (V726A/–), with recurrent 1- to 3-day episodes of fever, peritonitis and intermittent arthritis. The maximal dose of colchicine was not effective enough to prevent the bouts of disease; therefore, anakinra 100 mg/day was added to colchicine treatment 18 months before. After this treatment, disease control was achieved, but the patient had borderline low leucocyte counts. Anakinra was withheld 3 weeks before the last presentation because of leukopenia. Shortly after, the patient complained of sharp pain around her left knee, accompanied by fever. Physical examination was unremarkable except for reproducible pain with compression and warmth on the affected site. The patient denied any trauma or overuse. MRI of the knee demonstrated significant bone marrow oedema of the femoral condyles and proximal tibia, with sparing of the joint space (Fig. 1A). Her laboratory findings showed low white blood cell count ($3.8 \times 10^9$/l) and increased acute phase responses; CRP 105 mg/l (normal, 0–5 mg/l) and ESR 66 mm/h. The procalcitonin concentration was normal. Blood and urine cultures were negative. A peripheral blood smear was compatible with her blood count, and there were no bizarre cells. Bone scintigraphy demonstrated uptake of the tracer in the affected area. As no evidence of any other disease was found and white blood cell counts improved, anakinra was reinstituted on the ninth day of complaints. The patient was relieved dramatically from pain and fever soon after the anakinra injection. Two weeks after anakinra treatment, her CRP and ESR values had returned to normal values and knee MRI showed complete resolution of pathological findings (Fig. 1B).

Osteitis is a feature in certain autoinflammatory diseases, such as chronic recurrent multifocal osteomyelitis, Synovitis, acne, pustulosis, hyperostosis syndrome (SAPHO) and Deficiency of the IL-1 receptor antagonist (DIRA). Recently, some patients with heterozygous *MEFV* mutations reported atypical clinical presentations, such as colchicine-responsive recurrent episodes of muscle pain and chronic recurrent multifocal osteomyelitis-like syndrome [2, 3]. Osteitis is also a feature of spondyloarthritis, and it is known that the frequency of spondyloarthritis increases in FMF patients irrespective of colchicine prophylaxis [4]. To the best of our knowledge, this case is the first FMF-associated unifocal osteitis with fever in the literature. This case brings to mind that some of the attacks considered as arthritis might, in fact, be osteitis. As a

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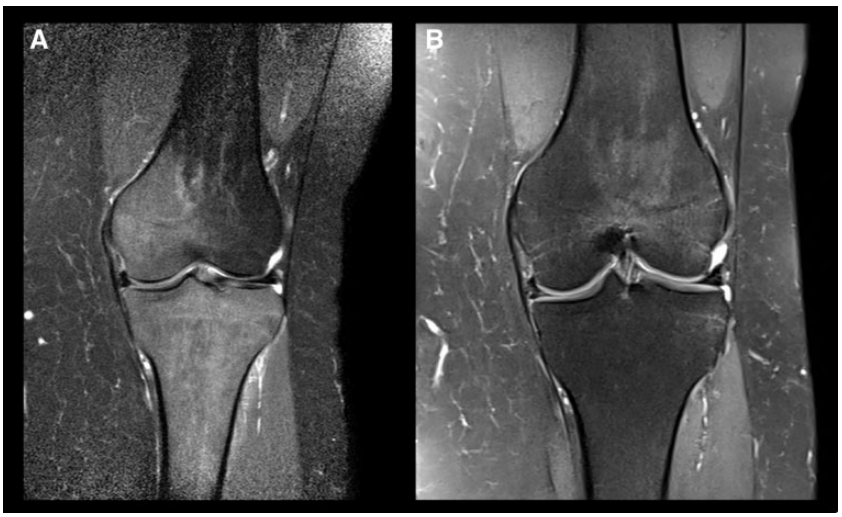
Fig. 1 MRI of the affected area, before and after treatment




(**A**) Coronal fat-saturated proton density image shows bone marrow oedema of femoral condyles and proximal tibia. (**B**) One month later, complete resolution of pathological signals and oedematous pattern.

limitation, we did not perform gene analysis for other autoinflammatory diseases in this patient; however, the geographical region and clinical picture other than osteitis are typical of FMF.

*Funding*: No specific funding was received from any bodies in the public, commercial or not-for-profit sectors to carry out the work described in this manuscript.

*Disclosure statement*: The authors have declared no conflicts of interest.

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Revised version accepted 19 June 2017
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