responses to conventional treatments, this was lacking for DM patients [7]. To our knowledge, this is the first report of the efficacy of tocilizumab against DM. Tocilizumab may be effective against DM for which conventional treatment is inadequate.

**Rheumatology key message**

- Tocilizumab may be effective against DM for which conventional treatment is inadequate.

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**Steroid-resistant remitting seronegative symmetrical synovitis with pitting oedema associated with gout treated with etanercept**

Sir, Remitting seronegative symmetrical synovitis with pitting oedema (RS3PE) is a rare disorder characterized by acute-onset seronegative remitting polyarthritis with distal pitting oedema. It usually affects males, is usually steroid responsive and may be paraneoplastic. We report a rare case of RS3PE due to gout.

An 81-year-old woman presented acutely with a 2-day history of a severe, painful left wrist monoarthritis requiring morphine. She was on long-term prednisolone for GCA and diuretics for congestive cardiac failure secondary to mitral stenosis and atrial fibrillation. There was no evidence of psoriasis or tophi. CRP was 250 mg/l, ESR was 110 mm/h and uric acid was 670 μmol/l. A septic screen, including wrist synovial fluid culture, was negative. She was initially treated with cefuroxime to cover joint sepsis and the prednisolone dose was increased to 30 mg/day, but her symptoms evolved to a relapsing–remitting symmetrical polyarthritis affecting her wrists, ankles and all MCP and PIP joints, with striking pitting oedema of her hands (Fig. 1A and B), significant functional limitation and marked elevation of inflammatory markers. She was seronegative for RF, CCP, ANA and ANCA. A malignancy screen, including CT of the chest, abdomen and pelvis, tumour markers, protein electrophoresis and serum/urine light chain analysis, were negative. An infection screen was negative, including blood, urine, synovial fluid cultures, virology (HIV, hepatitis, EBV, CMV and parvovirus) and transoesophageal echocardiogram. PIP aspirate demonstrated needle-shaped crystals. MRI of the hands demonstrated significant palmar oedema and extensor tenosynovitis without erosions. Clinical and biochemical response to additional i.m. steroid was short-lived and she had four relapses,
characterized by clinical deterioration with a dramatic acute-phase response (peak CRP 300 mg/l) following periods of recovery, during her 8-week admission. As she was steroid resistant and colchicine intolerant, she was started on etanercept with good clinical response and then allopurinol 6 weeks later. She remains well, with good control of her arthritis and suppressed acute phase markers at 6-month follow-up on a reducing regimen of prednisolone.

Our patient fulfilled McCarty’s criteria for RS3PE [1], including pitting oedema of both hands, sudden-onset polyarthritis, age >50 years, seronegative RF and absent radiographic joint erosions. The pathogenesis of RS3PE is unclear, but VEGF is postulated to play a central role in hypervascularity (synovitis) and vascular permeability (oedema) [2]. MRI demonstrates extensor tenosynovitis [3], as found in our patient, which may be responsible for s.c. oedema.

Our patient’s presentation with an acute wrist monoarthritis, raised serum urate, high-dose diuretics and needle-shaped synovial fluid crystals suggested a diagnosis of gout. RS3PE associated with gout is extremely rare. To our knowledge there have been only three reported cases of gout associated with RS3PE [4–6] and two of these patients developed RS3PE following repeated attacks of gout due to non-compliance with urate-lowering therapy [5, 6]. Most patients respond very well to low-dose steroids (10–15 mg prednisolone daily), with sustained, steroid-free remission. Inefficacy may suggest underlying malignancy [7]. Our patient’s steroid resistance and relapses are likely due to her background of long-term prednisolone, as occult neoplasia was carefully excluded. This was important prior to initiation of anti-TNF therapy. Ours is the first reported case successfully treated with TNF blockade. If TNF inhibition was unsuccessful, other options would have included IL-1 inhibition, in view of the importance of IL-1 in monosodium urate crystal-mediated inflammation [8], or VEGF blockade, given the possible involvement of VEGF in the pathogenesis of RS3PE.

RS3PE associated with crystal arthritides is rare, but should be considered in elderly patients. Steroid-resistant patients may respond to TNF inhibition, provided malignancy has been excluded.

**Rheumatology key message**

- Steroid-resistant remitting seronegative symmetrical synovitis with pitting oedema associated with gout is rare but may respond to TNF inhibition.

**Fig. 1** Clinical image of the patient’s hand

(A) Diffuse swelling of the dorsum of the hand, with pitting oedema and synovitis of the MCP joints. (B) MRI of the hand showing extensive subcutaneous oedema and oedema within the musculature of the palm and tenosynovitis of the flexor digitorum profundus and superficialis in the index and middle fingers.

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Letters to the Editor

Primary bone marrow oedema syndrome: proposed outcome measures for pain and physical functioning

Sir, Bone marrow oedema syndrome (BMES) is a rare, painful condition of unknown aetiology, affecting mostly adult men and pregnant women [1]. Currently, spontaneous pain in the hip, knee, ankle or foot, and rarely in the upper arm, is denoted as BMES if a concurrent diffuse bone marrow oedema is demonstrated in juxta-articular bone based on MRI findings. A bone marrow oedema is a lesion within the trabecular bone with ill-defined margins and with a low to intermediate signal on T1-weighted imaging and a high signal on T2-weighted imaging. On fat-suppressed, contrast-enhanced and short-tau inversion recovery (STIR) imaging, bone marrow oedema appears hyperintense (Fig. 1) [2]. Before a diagnosis of BMES can be made, other causes of bone marrow oedema, including trauma, infection, joint inflammation and tumours, must be ruled out. Presumably patients who were diagnosed with transient osteoporosis of the hip or migratory osteoporosis before the advent of MRI would now be classified as BMES. Because of the rarity of the disease, the existing knowledge is based on reports of single cases or small series of cases. It is thought to resolve spontaneously after 6–24 months, but may recur in another anatomical area. Several treatments have been suggested, but conclusions regarding their efficacy have been precluded by the small number of cases and the lack of placebo-controlled trials.

An obstacle to a better understanding of this intriguing condition is the lack of agreement on patient-reported outcome measures. Qualitative measures like severe pain, especially during ambulation, sudden incapacitating pain in the hip and groin, the requirement of crutches to walk or considerable limitation in walking have been common. Some authors have provided pain measurements on a visual analogue scale, while others have used composite measures such as the WOMAC, the Harris Hip Score or the Knee Society Score. Instruments intended to evaluate pain and physical functioning in hip or knee OA may not be applicable to patients with BMES, especially not for those with involvement of the ankle, foot or upper extremities. At present, the development of disease-specific outcome measures seems unlikely. Therefore, to enhance comparisons between patients and facilitate the interpretation of results across studies, we propose the use of common generic measures of pain and physical functioning in future reports of BMES.

To assess pain we propose the 11-point numerical rating scale (NRS) of average pain intensity in the previous 24 h. The 0–10 NRS has been recommended as a core outcome measure in trials of chronic pain [3] and has excellent psychometric properties, usability and compliance. This measure should be solicited using a presentation of the numbers from 0 to 10, with 0 meaning no pain and 10 meaning pain as bad as you can imagine. The minimal important (intra-individual) change in the 0–10 NRS is considered to be ~2 points [4]. Compared with a visual analogue scale, the NRS is easier to use, can be administered by telephone and yields fewer patient non-responses [5].

To measure physical limitations we propose the Short Form Health Survey (SF-36) 10-item physical functioning subscale, version 1.0 (SF-36 PF) [6]. Available in more than 50 languages, it is widely employed and has been validated in a variety of musculoskeletal conditions. Each item is rated on a 3-point Likert scale [yes, limited a lot (= 0); yes, limited a little (= 50); no, not limited at all (= 100)]. A total score is obtained by averaging the values of all items, with higher scores indicating better function. The

Fig. 1 Coronal short-tau inversion recovery image showing high signal intensity of the right femoral head and neck in a 42-year-old man with bone marrow oedema syndrome.