identified and in particular, toxic confusional state was excluded in all cases. This therefore raises the possibility that anti-TNF therapy may be implicated as an aetiological factor.

Rheumatology key message

- Long-term effects of anti-TNF-α are unclear. Psychosis may be a previously unrecognized adverse event.

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A synovial pathergy reaction leading to a pseudo-septic arthritis and a diagnosis of Behc¸et's disease

Sir, We report a case of a 31-yr-old man of Turkish-Cypriot origin who presented to rheumatology clinic with a 9-month history of left knee mono-arthritis. He additionally reported a single oral ulcer, following a cigarette burn that had coincided with the development of the arthritis, and had healed with the application of topical steroids. He was previously fit and well. He gave no history of gastrointestinal disturbance, skin rash or systemic upset. There were no signs of ophthalmic involvement, genital ulceration or synovitis of any other joint and swabs from the ulcer revealed no infective cause. His bloods revealed an ESR of 30 mm/hr with a CRP of 28 mg/dl. RF, ANA and ANCA were negative. Urine dipstick was negative for blood and protein. Radiographs of his chest and knee were normal. SF was negative for crystals and for microbial culture on two occasions. A diagnostic arthroscopic synovial biopsy was performed. Clear SF of 30 ml was aspirated immediately prior to the procedure, arthroscopic examination of the joint demonstrated florid synovitis with extensive pannus (Fig. 1A). A non-specific inflammatory synovitis was seen on histological examination of the synovial tissue (Fig. 1B). Seventy-two hours later the patient reported fevers and increased swelling of his knee, 100 ml of green turbid SF was aspirated. Bloods showed a white cell count of 2000 (neutrophils 1680) and a CRP of 90 mg/dl. A presumptive diagnosis of iatrogenic septic arthritis was made and empirical anti-microbial therapy commenced. When he was reviewed 48 h later a purulent skin rash was noted at the site of joint aspiration, typical of a pathergy reaction. He reported developing the same rash over arthroscopic entry sites 24 h following the procedure, along with new multiple oral ulcers. A repeat aspiration of his knee revealed brown purulent SF. Prolonged culture of SF, synovial tissue (ST) and blood revealed no infective organism. A biopsy of the pustular rash demonstrated a neutrophilic infiltrate, typical of Behc¸et’s disease (BD). HLA typing demonstrated the presence of the HLA-B51 antigen. His antibiotic therapy was stopped after 72 h and he received an IA corticosteroid injection. Institution of colchicine led to a complete resolution of his symptoms.

We believe the arthroscopic synovial biopsy induced a local pathergy response presenting as a pseudo-septic arthritis. The local trauma precipitated a flare of the disease and revealed the diagnosis.

One of the diagnostic criteria for BD is the pathergy reaction [1] and is seen in ~65% of patients [2]. The well-recognized flares following surgical procedures are thought to result from a similar pathogenesis [3], indeed a positive pathergy reaction would appear to be a risk factor for such post-operative disease flares [3]. Multiple mechanisms have been implicated in the hyperinflammatory response seen in BD including endothelial activation induced by vessel wall trauma, over expression of a Th1 inflammatory cytokine profile [4] and polynuclear cell hyperfunction [5, 6]. A report of a transverse myelitis and pustular skin rash...
following nerve root injection, in an undiagnosed case of BD [7], likely represents a similar pathogenesis to the case presented here. Spontaneous pseudo-septic arthritis has been reported previously in BD [8], but to the best of our knowledge this is the first case report of an arthroscopic synovial biopsy leading to a synovial pathergy reaction and subsequent pseudo-septic arthritis. It reinforces the need for consideration of immunosuppressive therapy during even minor surgical procedures in those with BD.

Rheumatology key message

- Pseudo-septic arthritis can result from synovial biopsy in Behcet’s disease.

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Fatal Pneumocystis pneumonia following rituximab administration for rheumatoid arthritis

Sir, The widespread use of immunosuppressive drugs for the treatment of inflammatory disorders puts a growing number of non-HIV patients at risk for opportunistic infections including Pneumocystis pneumonia [1]. In RA, Pneumocystis pneumonia is a rare but serious complication. Here, we describe the first case of Pneumocystis pneumonia in a patient with RA after B-cell depleting therapy with rituximab. Beforehand, the patient was treated with traditional DMARDs and prednisolone for several years without any major complications.

A 53-yr-old man with RA presented with a 7-day history of shortness of breath, dizziness, loss of appetite and fever. Until 4 months earlier, the patient was treated with a combination DMARD therapy consisting of MTX (20 mg s.c. weekly) and LEF (20 mg daily) together with low-dose prednisolone. A severe arthritis flare necessitated an adjustment of this therapy, which had been in place for 4 yrs without side-effects. As the patient had a past history of pleural tuberculosis, we decided against administration of a TNF-α-inhibitor at that time. Instead, treatment with LEF was discontinued and rituximab (1000 mg i.v. on days 1 and 15) was administered in combination with MTX (20 mg s.c. weekly). In addition, the patient received low-dose prednisolone at 5–7.5 mg/day. The patient had been diagnosed with emphysema due to cigarette smoking in the past. On examination, an oropharyngeal candidiasis and bronchial breathing was noted. Heart rate was 110/min and blood pressure 150/60 mmHg. Leucocytes were within the normal range (6.1 x 10⁹/l) but lymphocytes were considerably decreased (183 x 10⁹/l). The concentration of CRP was 282 mg/l and lactate dehydrogenase was 747 U/l. The HIV test was negative. A chest radiograph showed patchy or confluent infiltrates spread over both lungs (Fig. 1). The patient was immediately transferred to the intensive care unit and a flexible bronchoscopy with bronchoalveolar lavage was performed. After the procedure, the patient developed respiratory failure and had to be intubated and mechanically ventilated. Bronchoalveolar lavage fluid was negative for Mycobacteria (Ziehl-Neelsen stain, culture and PCR analysis) and Pneumocystis (Grocott’s methenamine silver stain). However, Acinetobacter baumannii was detected and the bronchoalveolar lavage contained 10⁶ copies/ml of Herpes simplex virus DNA. Treatment with piperacillin/sulbactam, ciprofloxacin, aciclovir and voriconazole was initiated. One week after admission, antibiotics were empirically switched to meropenem and vancomycin due to clinical worsening. Bronchoalveolar lavage was repeated on day 14. Again, microscopy for Pneumocystis was negative but this time PCR analysis revealed Pneumocystis DNA at high concentrations (10⁶ copies/ml). Cotrimoxazol was added to the antibiotic regimen immediately but eventually the patient died from septic multi-organ failure. Post-mortem histology of the lungs revealed alveoli filled with amorphous PAS-positive material. Pneumocystis cysts were found in the Grocott’s methenamine silver stain. These findings confirmed the diagnosis of septic multi-organ failure due to Pneumocystis pneumonia.

The patient demonstrated here was treated with a complex immunosuppressive drug scheme for RA. In this scenario, it is impossible to determine the contribution of single drugs to the development of Pneumocystis pneumonia. Prednisolone and MTX are both risk factors for Pneumocystis pneumonia [2, 3]. RA itself...