Cricothyroid arthritis in a child with familial Mediterranean fever

Sir: We describe the first time the occurrence of cricothyroid arthritis in a girl who first presented with migratory polyarticular arthritis but eventually developed the classical features of familial Mediterranean fever. A 9-year-old Palestinian Arab girl was admitted in January 1985 with fever and migratory polyarticular arthritis of the large joints. The heart was normal. The erythrocyte sedimentation rate was 110 mm/h and the antinuclear antibody titre was 400 Todd units. A diagnosis of acute rheumatic fever was made and treatment was started with secondary prophylaxis. During the following six years she had several episodes of arthritis, which were interpreted as recurrence of acute rheumatic fever due to irregular prophylaxis, and occasional fever and abdominal pain.

In January 1985 the girl was admitted with fever and arthritis of both elbows and the right wrist. There was evidence of the developed arthritis of the cricothyroid joint. The diagnosis was verified by indirect laryngoscopy. She also developed arthritis of the interphalangeal joints of both hands. She became better after five days of aspirin but the arthritis recurred with fever and abdominal pain.

In May 1986, she had another similar episode of transient arthritis of the cricothyroid and interphalangeal joints. During the following three years she had several episodes of fever and abdominal pain, with the frequency progressively increasing to one to two attacks a week. She also developed arthritis of the ankles associated with erysipelas-like erythema. Family members had noted that her mother and a maternal aunt and two sisters had had similar recurrent episodes. Prophylaxis with colchicine was effective in decreasing the frequency of febrile and painful episodes; during the past 12 months she had only three fever and abdominal attacks and one episode of transient arthritis of the left ankle.

The synovial fluid of the febrile Mediterranean fever typically appears as acute mononuclear arthritis affecting large joint of the lower extremity. Involvement of the small joints, including the temporomandibular, sternoclavicular, and metatarsophalangeal joints, has been described in patients with familial Mediterranean fever, whereas involvement of the interphalangeal joints has been reported to be most unusual. Cricothyroid arthritis is the course of familial Mediterranean fever has not been previously described.

The presentation with migratory polyarticular arthritis, the involvement of the interphalangeal joints, and the long period before the appearance of the classical manifestations of familial Mediterranean fever are other unusual features in this case.

FAISAL A KHUSSAFFL
JANNET J MAJED
Department of Paediatrics
Faculty of Medicine
Kuwait University
PO Box 24923
13110 Safat, Kuwait

Sir: We would like to offer what we believe to be a necessary reply to Professor Panay's letter published in the Annals.1 Professor Panay considers that in the two B27 positive patients we described, who developed peripheral arthritis immediately after trauma,2 physical injury and the onset of peripheral arthritis were only coincidental. The first case represents, in his opinion, a reactive arthritis following gastroenteritis, and the second case, arthritis of the knees begun by chance after the trauma.

If other articles on this subject3–6 are not taken into account this may seem to be the most logical conclusion, partly because no evidence of causality may be produced other than the immediate onset of peripheral arthritis after trauma, and the lack of an infective trigger. Wisniewski3 and Masson et al4 have reported other cases of peripheral arthritis in B27 positive subjects immediately after physical injury. In some of these, like our patient 1, there was also arthritis with negative rheumatoid factors and antinuclear antibodies, in addition to arthritis. Our patient also had a diarrhoea with negative stool culture, which subsided in two days without any treatment. In 1982 Jacobs et al reported that five of their 58 patients with juvenile onset B27 positive spondyloarthropathy had a trauma severe enough for a doctor to be consulted before the onset of peripheral arthritis.5 In 1988 we reported two similar cases which were both of traumatic origin.6 The rapid evolution of the destructive process, which is not usual in erosive arthritis of seronegative spondyloarthropathy, provides further evidence in favour of the triggering role of trauma.

In conclusion, the articles published on the subject suggest that as in psoriatic arthropathy,5 6 physical injury may, in B27 positive subjects, trigger the onset of a peripheral arthritis predominantly affecting the peripheral joints. We hope that others will report similar cases and perform studies on the synovial fluid and blood of patients with B27 associated peripheral arthritis following trauma, in an attempt to understand the pathogenetic mechanisms. We appreciate the comments of Professor Panay and thank him for drawing our attention to this topic of seronegative spondyloarthropathy.

IGNAZIO OLIVIERI* GABRIELE GEMIGNANI GIANPIERO PASSERO Rheumatic Disease Unit Institute of Medical Pathology University of Pisa Pisa, Italy

*Correspondence to: Dr Ignazio Olivieri, Istituto di Patologia Medica I, Servizio di Reumatologia, Via Roma 67, 56100 Pisa, Italy.