Elderly onset isolated B27 associated dactylitis

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Dactylitis, or “sausage-like” digit, is a typical manifestation of spondyloarthropathy (SpA). Although more common in psoriatic arthritis, dactylitis has been seen in all forms of SpA, including the undifferentiated forms (uSpA). In these latter cases, dactylitis usually occurs in association with the other clinical and radiological manifestations of SpA. However, occasionally, dactylitis may for a long time be the only clinical manifestation of the B27 associated disease process. This has been described in young and middle aged adults and in children. Recently, we observed the cases of two B27 positive subjects with elderly onset, isolated, longstanding dactylitis, which we report briefly here.

CASE REPORTS

The first patient, a 71 year old woman, was referred to us for evaluation of severe swelling and pain of the fourth finger of the right hand of nine months’ duration. Her family history was negative for SpA and other B27 associated diseases. Her medical history was unremarkable, except for hypertension. The patient denied ever having had other clinical manifestations of SpA. Physical examination disclosed a marked swelling affecting the entire digit. The flexor synovial sheaths were so swollen and tender that the patient could not flex the finger. There was no pain and swelling at the fourth metacarpophalangeal and proximal and distal interphalangeal joints. The only abnormal laboratory measure was a C reactive protein of 30 mg/l (normal <5). HLA typing showed A3, B27, and B53. Pelvis radiographs showed normal sacroiliac joints. The dactylitis was treated with steroid injections in the flexor synovial sheaths, with good results.

The second patient, a 62 year old man, had had “sausage-like digit” of the second right toe for three months when he was referred to us. His sister and aunt, examined in the previous 12 months in our department, were found to have B27 positive arthritis associated with ulcerative colitis and B27 positive elderly onset uSpA, respectively. The patient’s medical history was unremarkable and did not disclose any other manifestation of the B27 associated disease process. Physical examination showed severe dactylitis with swelling and tenderness along the flexor synovial sheaths of the second right toe. The joints of the digit were not affected. Laboratory evaluation showed an erythrocyte sedimentation rate of 30 mm/1st h and a C reactive protein of 30 mg/l. HLA typing showed A2, B27, and B45. Pelvis radiographs were normal. Dactylitis was successfully treated with steroid injections into the flexor synovial sheaths.

DISCUSSION

Our two elderly patients were unquestionably affected by B27 positive, late onset uSpA. They were B27 positive, had no history of previous manifestations of SpA, and developed an isolated severe dactylitis. In both cases clinical examination showed marked swelling and tenderness along the flexor tendon sheaths and normal metacarpophalangeal and interphalangeal joints. Recent studies with magnetic resonance
imaging and ultrasound have shown that the lesion always present in dactylitis is flexor tendon tenosynovitis and that arthritis of the adjacent joints may be absent.\textsuperscript{1,4,6} In addition, our studies on dactylitis have demonstrated that physical examination has a high specificity and sensitivity in diagnosing dactylitis and that, therefore, imaging techniques are not essential in routine practice.\textsuperscript{3,4}

uSpA include forms of SpA that fail to meet criteria for the definite forms.\textsuperscript{1,3} Recent epidemiological studies using the Amor and/or the ESSG criteria for all forms of SpA have shown that uSpA is more common or as common as ankylosing spondylitis.\textsuperscript{3,5} The clinical spectrum of uSpA is wide, resulting from the various combinations of clinical and radiological manifestations. These include peripheral arthritis, peripheral enthesitis, dactylitis, inflammatory spinal pain, buttock pain, sacroiliitis, chest wall pain, acute anterior uveitis, aortic insufficiency together with conduction disturbances, each of which may also occur in isolation.\textsuperscript{2} In 1977 De Ceular et al described the cases of young and middle aged B27 subjects with isolated dactylitis.\textsuperscript{2} In 1988 Siegel and Baum reported the same situation in B27 positive children.\textsuperscript{8}

In the past few years attention has been drawn to late onset uSpA. In 1995 we reported on 23 patients with uSpA who had the first symptom after the age of 45 years.\textsuperscript{2} Of these, 12 had three or more manifestations of SpA, seven showed two manifestations, and four only one. Of these four, two had peripheral enthesitis and two acute anterior uveitis. The present report expands the clinical spectrum of late onset SpA with the inclusion of isolated dactylitis.

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**REFERENCES**


I n most studies examining the outcome of early arthritis, lupus and vasculitides are rare events, occurring in only 1–3% of cases.\textsuperscript{1} However, they should be diagnosed as quickly as possible. Thus, it might be worth testing patients with early arthritis for the presence of anticytoplasmic neutrophil antibodies (ANCA).\textsuperscript{2} Indeed, a strong positivity for ANCA might suggest that vasculitides, including Wegener’s disease and microscopic polyangiitis, were probably present before the onset of the clinical features typical of these disorders.\textsuperscript{3} Similarly, and in addition to looking for antinuclear antibodies (and/or anti-dsDNA antibodies), it has been claimed that testing for antinucleosome antibodies might be a valuable additional test for the early detection of lupus; this last subset of autoantibodies has shown good sensitivity (56%) and excellent specificity (97%) for longlasting systemic lupus erythematosus (SLE).\textsuperscript{4} However, these assumptions have not yet been supported by data from an inception cohort of patients with early unclassified arthritis tested by routine methods.

We tested for ANCA by indirect immunofluorescence (IIF) (1:20 dilution) and for antinucleosome-IgG by a commercial enzyme linked immunosorbent assay (ELISA) kit (BMD DNA-NUC-LISA) in the baseline sera of 270 patients with early onset arthritis without clinical signs suggestive of visceral disease. We then followed up these patients for a mean (SD) of 28.5 (12.1) months.

For the ANCA testing, although 23/270 (9%) baseline sera were positive, neither of the two patients later diagnosed as having vasculitides were positive by IIF-ANCA. Moreover, for both patients, even testing for anti-proteinase 3 (anti-PR3) and anti-myeloperoxidase (anti-MPO) by ELISA was negative at baseline.