LETTERS TO THE EDITOR

Arthritis in hyperimmunoglobulinaemia D

Sir: Hyperimmunoglobulinaemia D is a rare disorder characterised by periodic fever with a high serum IgD level. Until now, arthritis has not been recognised as a manifestation of the disease. We report the cases of four Dutch patients with hyperimmunoglobulinaemia D who experienced arthritis during the attacks (table). One patient will be described in more detail.

Patient No 1 (male, 30, Caucasian) had had, since early childhood, recurrent attacks of high fever (≥39°C) with lymphadenopathy, a painful erythema with target-like lesions, consisting of a clear red area at the periphery, surrounding a pale pink zone and a central livid area at the extensor sides of the extremities (histopathologically compatible with erythema multiforme exudativum), and abdominal pain. Attacks usually lasted for five to seven days and remitted spontaneously. During attacks laboratory investigation showed a leucocytosis with a shift to the left, and raised C reactive protein and erythrocyte sedimentation rate. Repeated and extensive immunological and microbiological investigations failed to disclose a diagnosis. In between these periods he was completely healthy.

In 1989 he was admitted with a similar attack and a florid arthritis of his right elbow. As before no infectious agent could be found. Immunological testing showed normal complement concentrations, no organ-specific autoantibodies, no rheumatoid factor, no antinuclear antibodies, antibodies to dsDNA, or extractable nuclear antigens. Serum IgA was slightly increased and the serum IgD was polyclonal and increased: 930 IU/ml (normal <100 IU/ml). A diagnosis of hyperimmunoglobulinemia D was made. Paracetamol and codeine were given, and his symptoms resolved completely within seven days.

This patient's history is characteristic of the hyperimmunoglobulinaemia D syndrome.1-3 The presentation with an arthritis is remarkable, however.

In three other patients with a hyper IgD syndrome we have also noted transient arthritis during several of the 'classical' attacks (see table).

In contrast with other periodic fever syndromes, such as familial Mediterranean fever and familial Hibernian fever, arthritis has not, until now, been reported in the hyper-IgD syndrome, though arthralgia has been found.4

The presented case histories suggest that arthritis, mostly affecting the large joints, can be part of the syndrome. We noted that the arthritis always disappeared spontaneously, with disappearance of the other symptoms, in five to 10 days. Paracetamol or a non-steroidal anti-inflammatory drug can be prescribed for the treatment of symptoms.

Colchicine seems to influence the frequency of the attacks1 3 in some patients, though failure of this treatment has also been reported.2

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References


Use of cyclosporin A in the eosinophilia myalgia syndrome

Sir: The eosinophilia myalgia syndrome (EMS), a newly recognized disorder linked to the ingestion of L-tryptophan containing products, is characterised by early peripheral eosinophilia, myalgias,1 scleroderma-like skin changes, and variable involvement of the pulmonary,2 cardiac,3 and neurological4 systems. Pathologically, the affected tissues display inflammatory infiltrates consisting primarily of lymphocytes and macrophages, endothelial cell swelling and degeneration, variable degrees of eosinophil infiltration, and diffuse tissue fibrosis. The initiating stimulus for this widespread inflammatory reaction is unknown, but two substances, one of which is a dimer of L-tryptophan and the other an aniline compound, are being investigated because they are found in higher concentrations in samples of L-tryptophan associated with EMS than in samples not associated with the syndrome.5 6

Corticosteroids have been used to treat EMS, but the disease is often unresponsive or poorly responsive. Therapeutic responses to other immunosuppressive drugs and plasmapheresis have been limited and unpredictable. As cyclosporin A, which can inhibit T cell and eosinophil function, has been used to treat both scleroderma and eosinophilic fasciitis, we began a trial with this drug in EMS.

Eight patients meeting Centers for Disease Control criteria for the diagnosis of EMS, who either had an unsatisfactory response to corticosteroids or were unable to tolerate corticosteroids, were treated with cyclosporin A, initially at 5 mg/kg/daily. Cyclosporin A concentrations were measured at first weekly and then monthly, and the dose was adjusted to maintain the whole blood trough concentration at 100–200 ng/ml. Hypertension or renal disease resulted in adjustments of dose. The patients' conditions were evaluated regularly by a single observer (DJC) and fasciitis, muscle strength, and neuropathy were determined; myalgias and dyspnoea were subjectively assessed by the patients.

Fascitis was graded on a scale of 0–2 (0 = normal skin, 1 = mild to severe induration of <25% of body surface, and 2 = severe induration of >25% of body surface). Muscle strength was assessed with a standard scale of 0–5, and the extent of neuropathy was noted.

The table (p. 82) summarises the clinical data. Cyclosporin A was used for a mean of 8.1 months, and was eventually discontinued by all patients—in six owing to side effects and in two owing to lack of efficacy. The most common serious side effects included renal insufficiency (responsive to dose modification in two patients but leading to discontinuation at a mean of 14 months in three others) and hypertension (responsive to dose modification in all three patients). In five patients fasciitis and myalgias improved significantly. Three of these patients, all of whom had stopped taking cyclosporin A because of renal insufficiency, developed objective worsening of these symptoms when treatment was stopped. Worsening was improved in two, remained the same in three, and worsened in two. There were no significant changes in neuropathy or dyspnoea. Despite frequent attempts to taper corticosteroids, there was no consistent change in the daily corticosteroid dose.

The incomplete response to cyclosporin A in this study might be due to many factors. Only seriously affected subjects who had taken corticosteroids for a prolonged period

Characteristics of the patients

<table>
<thead>
<tr>
<th>Patient</th>
<th>Age (years)</th>
<th>Age at onset (years)</th>
<th>Race</th>
<th>Sex</th>
<th>Typical attack</th>
<th>Duration of attack (days)</th>
<th>Frequency of attack (years)</th>
<th>Serum IgA (IU/ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>30</td>
<td>&lt;4</td>
<td>Caucasian</td>
<td>M</td>
<td>Fever + TPC</td>
<td>5-7</td>
<td>4-6</td>
<td>930</td>
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<tr>
<td>2</td>
<td>46</td>
<td>&lt;4</td>
<td>Caucasian</td>
<td>M</td>
<td>Rash + + +</td>
<td>5-10</td>
<td>8-10</td>
<td>450</td>
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<tr>
<td>3</td>
<td>32</td>
<td>&lt;4</td>
<td>Caucasian</td>
<td>M</td>
<td>Arthritis + +</td>
<td>3-4</td>
<td>8-12</td>
<td>1170</td>
</tr>
<tr>
<td>4</td>
<td>33</td>
<td>&lt;4</td>
<td>Caucasian</td>
<td>M</td>
<td>Abdominal pain</td>
<td>3-5</td>
<td>8-12</td>
<td>680</td>
</tr>
</tbody>
</table>

*Patient described in text.
†Brother of patient 3.
‡All patients had appendectomy; histopathologically no inflammation.
§Before colchicine.
were included in this study; this group might have derived a substantial benefit from corticosteroid treatment that cyclosporin A would do little to augment. Alternatively, the manifestations unresponsive to cyclosporin A might have been either irreversible or too slow to reverse to be detected in a small, short term trial.

Our data show limited usefulness of cyclosporin when used relatively early in this disease. Given what is now known about EMS, one would expect that the efficacy of any regimen aimed at reduction of inflammation would diminish further as the syndrome progressed, and that any advances in treatment are unlikely to be found among the immunomodulatory drugs.

**Clinical data**

<table>
<thead>
<tr>
<th>Patient No</th>
<th>Age/sex</th>
<th>Duration of EMS before cyclosporin A use (months)</th>
<th>Duration of cyclosporin A use (months)</th>
<th>Significant side effects of cyclosporin A</th>
<th>Reason for discontinuing cyclosporin A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>44/F</td>
<td>13</td>
<td>3</td>
<td>&quot;Stiffness&quot;</td>
<td>Patient's request</td>
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<tr>
<td>2</td>
<td>61/F</td>
<td>20</td>
<td>4</td>
<td>Abdominal pain, diarrhoea</td>
<td>Patient's request</td>
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<tr>
<td>3</td>
<td>35/F</td>
<td>7</td>
<td>19</td>
<td>Renal insufficiency, hypertension, oedema</td>
<td>Renal insufficiency</td>
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<tr>
<td>4</td>
<td>41/F</td>
<td>11</td>
<td>8</td>
<td>Renal insufficiency, hypertension</td>
<td>Renal insufficiency</td>
</tr>
<tr>
<td>5</td>
<td>56/F</td>
<td>15</td>
<td>8</td>
<td>Renal insufficiency, hypertension</td>
<td>Lack of efficacy</td>
</tr>
<tr>
<td>6</td>
<td>33/M</td>
<td>6</td>
<td>16</td>
<td>Renal insufficiency</td>
<td>Renal insufficiency</td>
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<tr>
<td>7</td>
<td>38/F</td>
<td>18</td>
<td>6</td>
<td>Worsening myalgia</td>
<td>Myalgia</td>
</tr>
<tr>
<td>8</td>
<td>52/F</td>
<td>12</td>
<td>9</td>
<td>Worsening myalgia</td>
<td>Lack of efficacy</td>
</tr>
</tbody>
</table>

*EMS = eosinophilia myalgia syndrome.

**Hypertrophic osteoarthropathy and AIDS**

Sirs: Rheumatic manifestations of human immunodeficiency virus (HIV) are diverse. Although conditions appear to be unique to HIV infected patients, whereas others, such as Reiter's syndrome, may be more widespread. Reports of patients with coexistent acquired immune deficiency syndrome (AIDS) and diseases of unknown cause are often interesting as they may help to clarify their pathogenesis. One of these syndromes is hypertrophic osteoarthropathy, an entity occasionally associated with chronic bacterial infections and other conditions, especially bronchogenic carcinoma. Despite the high prevalence of opportunistic infections in patients with AIDS, associated hypertrophic osteoarthropathy has rarely been reported. We present a patient with AIDS who developed severe rapidly progressive hypertrophic osteoarthropathy concurrently with anaerobic necrotising pneumonitis.

A 29 year old man, an intravenous drug and alcohol abuser, known to be HIV positive, was admitted owing to development of severe pain and oedema in his arms and legs two months previously. He also complained of a persistent cough, with foul smelling sputum, occasionally haemoptoic, fever, and pleuritic chest pain. He had lost 10 kg of weight. On examination, the patient appeared cachetic, was unable to walk, and had a temperature of 38.5°C. His mouth showed oropharyngeal candidiasis. Inspiratory rates were heard in the superior field of the right hemithorax. Heart sounds were normal, as was the pulse, and tachycardia. The liver was felt 5 cm under the costal margin. There was no splenomegaly and diseased lymph nodes were not palpable. Both forearms, hands, legs, and feet showed prominent oedema, local warmth, and tenderness to pressure. Ostearticular examination disclosed prominent clubbing of the fingers and toes, as well as synovitis, with moderate effusion of the knees, ankles, elbows, wrists, and proximal interphalangeal joints of the hands.

Blood studies showed haemoglobin 90 g/l, leucocytes 7.3 10^9/l (lymphocytes 1.965 10^9/l, monocytes 0.55 10^9/l, neutrophils 5.7 10^9/l), platelets 367 10^9/l, erythrocyte sedimentation rate 105 mm/hr. Serum alkaline phosphatase was 425 U/I (normal <279).

Results of other routine tests were normal, with normal calcium, phosphorus, creatinine, glucose, aspartate transaminase, alanine transaminase, and lactate dehydrogenase. Urine analysis results were also normal.

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