What Is the Outcome of Undifferentiated Arthritis?

¿Cuál es la evolución de las artritis indiferenciadas?

To the Editor:

The use of a coding system in rheumatology improves the performance and quality of patient care. In the rheumatology department of our hospital, which has a reference area of 850,000 inhabitants, coding is carried out since 1984. Several rheumatologists prospectively collect, at 6 months of the first visit, medical history and diagnosis of patients seen in the clinic, patients admitted to hospital beds and admitted to other services that request an interconsultation. The nomenclature of the American College of Rheumatology (ACR) of 1983 was used and suitably modified to include a section of undiagnosed arthritis where mono, oligo and polyarthritis without an identified cause are included. Between 2006 and 2011, 13,767 first consultations were carried out and 154 patients with undiagnosed arthritis (1.12%) were classified. They retrospectively reviewed the medical records of these patients and the location of arthritis, follow up and final diagnosis reached up until December 2013 were collected, with an elapsed minimum 2½ years since the first visit (range 2.5–5 years). The distribution of arthritis was: 36 (22.3%) monoarticular, 71 (46.1%) oligoarticular and 47 (30.5%) polyarticular. Monoarticular forms affected the following joints: in 21 cases (58.3%) knee; 4 (11.1%) metatarsophalangeal; 3 (8.3%) proximal interphalangeal; 2 (5.5%) tibioperoneoastragalus; 2 (5.5%) carpus; 2 (5.5%) metacarpophalangeal; 1 (2.7%) tarsus, and 1 (2.7%) elbow. The evolution of arthritis is summarized in Table 1.

It is noteworthy that of the 36 patients with monoarthritis, 4 evolved to seronegative oligo or polyarthritis and 3 oligoarthritis patients progressed to undifferentiated polyarthritis, also undifferentiated.

We conclude that undifferentiated arthritis may progress to a classifiable inflammatory disease, self-limit or persist undifferentiated, representing a challenge for the rheumatologist. The percentage of spontaneous resolution in our series of cases is 44.4%, 9.8% and 14.9% for mono, oligo and polyarthritis, respectively. The former are more inclined to resolve spontaneously, whereas oligoarticular and polyarticular onset forms are more likely to become chronic. In the present series an established diagnosis was reached in 57 patients (65%) after an average of 8 months; mostly had an oligoartricular origin (65%). 11 patients (19%) were diagnosed with spondyloarthritis, whose onset was characterized as mono or oligoarticular; conversely, the 9 patients (16%) with a subsequent diagnosis of rheumatoid arthritis (RA) had an oligo or polyarticular onset. In addition, 10 patients (17.5%) were diagnosed with microcrystalline arthritis with a mono, oligo or polyarticular onset.

Most undiagnosed polyarthritis in the first 6 months, continued without cause after follow up. Interestingly, the percentage of

Table 1

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<th>Evolution</th>
<th>Undifferentiated arthritis n = 154</th>
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<tr>
<td></td>
<td>Monoarticular 36 (23.3%)</td>
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<tr>
<td>Undifferentiated</td>
<td>9</td>
</tr>
<tr>
<td>67 (43.5%)</td>
<td>5 follow controls</td>
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<td>Self-limited</td>
<td>4 do not follow controls</td>
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<td>30 (19.5%)</td>
<td>16</td>
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<tr>
<td>Diagnosis established</td>
<td>11</td>
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<tr>
<td>57 (65%)</td>
<td>3 spondyloarthritis</td>
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<tr>
<td></td>
<td>2 microcrystalline</td>
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<tr>
<td></td>
<td>2 juvenile idiopathic arthritis</td>
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<tr>
<td></td>
<td>4 others</td>
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<td></td>
<td>4</td>
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4 Arborescent lipoma, undifferentiated granulomatous synovitis and mechanical causes.
5 Paraneoplastic, TBC, reflex sympathetic dystrophy, SAPHO syndrome, vasculitis and osteoarthritis.
6 Polymyalgia rheumatic and osteoarthritis.

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Parvovirus B19 chronic monarthritis in a patient with common variable immunodeficiency

Monaritis crónica por parovirus B19 en un paciente con inmunodeficiencia común variable

Sir,

Human parvovirus B19 infection is mainly associated with erythema infectiosum or fifth disease in children and arthralgia/arthritis in healthy adults.

We describe the case of a patient who presented with chronic monarthritis of the wrist due to parvovirus B19 and was found to have common variable immunodeficiency (CVID). A 48-year-old man was referred to the hospital because of right wrist monarthritis lasting six months. Physical examination showed swelling of the right wrist not associated with erythema, warmth or skin lesions. Laboratory analyses showed a white blood cell count of 8300/mm³ (91% granulocytes, 4% lymphocytes), an erythrocyte sedimentation rate (ESR) of 67 mm/h and a C-reactive protein (CRP) of 9.4 mg/l. Serum electrophoresis demonstrated hypogammaglobulinaemia: 0.06 g/dl (IgG < 8.6 mg/dl, IgA < 7.8 mg/dl, IgM < 29.8 mg/dl). Rheumatoid factor and antinuclear antibodies were negative. Low values of C3 and C4 were found (64 mg/l and 1.5 mg/l, respectively). Serologic tests for Barretia burgdorferi, hepatitis B and C, rubeola and mumps virus, enterovirus, cytomegalovirus, Epstein Barr virus, human immunodeficiency virus and parvovirus B19 were negative. A bone gammagraphy showed marked fixation of the tracer in the right carpus, suggestive of arthritis. A magnetic resonance displayed diffuse synovitis of the right distal radio-cubital joint, with no signs of necrosis or osteomyelitis. A synovial biopsy was performed; histopathological studies showed chronic nonspecific inflammatory changes and polymerase chain reaction (PCR) detected the presence of paroviral B19 DNA in synovial tissue. PCR of parovirus B19 DNA in blood was positive.

A diagnosis of paroviral B19 monarthritis in the setting of CVID was made, and prompt treatment with intravenous immunoglobulin (0.4 g/kg every 4 weeks) was administered with complete resolution of articular symptoms after the second infusion. Because of hypogammaglobulinemia, treatment with intravenous immunoglobulin was continued indefinitely. Human parvovirus B19 infection is detected in 3.3% of patients examined for acute reactive arthritis. Joint symptoms usually resolve within two weeks; however, 0–17% of patients has chronic arthritis, generally a symmetric polyarthrits that can resemble rheumatoid arthritis. Chronic monarthritis is much less frequent. To our knowledge, five cases of parovirus B19 chronic monarthritis have been described: three children and two adults. Diagnosis of B19 infection in immunocompetent individuals is made by detection of B19 specific antibodies in blood. Caution should be made when interpreting serology for parovirus B19 in immunodeficient patients and pregnant women because of their decreased capacity to mount an antibody response. In these patients, serology should be complemented by PCR analyses of B19 DNA.

In our patient, serologic tests for parovirus B19 were negative and diagnosis was made by PCR of blood serum and synovial tissue. Even though the presence of parovirus B19 DNA in synovial tissue does not allow a definite diagnosis, the absence of other causes and the rapid response to intravenous immunoglobulin, led us to assume the viral aetiology of the arthritis.

CVID is a primary immune deficiency characterized by reduced levels of immunoglobulins of all classes despite normal numbers of circulating B cells. The deficiency in IgG production may lead to recurrent infections with encapsulated organisms, such as Streptococcus pneumoniae and Haemophilus influenzae.

References


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