



POSNA

The Core Curriculum

Juvenile arthritis

Objectives

1. Describe a classification of juvenile arthritis
2. Discuss the prognosis and its relation to age of onset and type of arthritis
3. Describe the pathophysiology of joints affected with juvenile arthritis
4. Discuss current treatment of juvenile arthritis

Discussion point

1. How often is the orthopaedist the first specialist contacted for patients with juvenile arthritis?
2. Why are ophthalmologists involved with this condition?

Discussion

Juvenile arthritis is a relatively common disease affecting children. Terminologies have varied through the last 25 years. The International League against Rheumatism has proposed a classification which that organization hopes will clarify communication between Europe and North America. At the present time, there is still some discussion about classification, but the ILAR will be presented here. Categories listed include systemic arthritis, oligoarthritis (persistent), oligoarthritis (extended), polyarticular arthritis (rheumatoid-factor negative), polyarticular arthritis (rheumatoid-factor positive), enthesitis arthritis, psoriatic arthritis, and unclassified. North American clinicians will find some of these terms unfamiliar, the last 3 categories are not juvenile arthritis; and terminology in North America has been pauciarticular, polyarticular, and systemic. With such a heterogeneous group of disorders, a single etiology is obviously not at play, there appears to be a combination of autoimmune activity with other local factors, such as cytokine activity and growth factors. Systemic arthritis can begin anytime in childhood, characterized by high fever, rash, intense musculoskeletal pain, and a number of other clinical and laboratory findings. These children do not generally present to the orthopaedist, but children with pauci (or oligoarthritis) do, in a recent study 62% were referred to an orthopaedist before seeing a rheumatologist. Joints most often affected with pauciarticular arthritis are knees, ankles, fingers, toes, wrists, elbows, and hips respectively. Although children with pauciarticular arthritis are generally thought to do well, rheumatologists are identifying subsets of pauciarticular arthritis with less good prognoses. Medical management of juvenile arthritis has evolved considerably over the past decade, with more frequent intra-articular steroid usage, less systemic steroid administration, methotrexate, and bone marrow transplant for serious situations. Uveitis, which formerly led to the blinding of a number of children because of its silent progression, appears to be affected in incidence to some degree by race, white children particularly susceptible.

Growth disturbance, systemic or regional, accompanies juvenile arthritis. Leg length discrepancy is common in the oligoarticular subset, which can easily be managed by standard measures. The need for synovectomy appears greatly reduced as a result of better medical management. However, the orthopaedist still has a great role in prevention or management of contracture, and monitoring functional recovery (as persistent weakness is common).

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