Chronic Arthritis in Children
Diana Milojevic, MD

Differentiating between arthralgia and arthritis is of the utmost importance for the pediatrician. Proper joint exam, aided by adequate use of laboratory and imaging tests, makes this differentiation possible.

Renee F. Modica, MD, Sukes Sukuamaran, MD, and myself give a comprehensive review of the joint exam in children, providing illustrations of the exam maneuvers and interpretations of different physical findings (see page 461).

Although much rarer than arthralgia, arthritis may occur in children, most commonly as part of acute viral or post-viral syndromes. Chronic arthritis not part of any other chronic disease that lasts longer than 6 weeks and has onset before age 16 years, is termed juvenile idiopathic arthritis (JIA).

The JIA nomenclature was introduced by the International League of Associations for Rheumatology (ILAR) in an effort to improve and align the classification and diagnosis of chronic childhood arthritis across the world. Although it is likely that the better understanding of the underlying pathology of chronic arthritis in childhood will lead to changes of this classification in the future, JIA has largely replaced previously used nomenclature.

Three of the articles in this issue report on different types of chronic arthritis in children. Joyce S. Hui-Yuen, MD, MsC, and Lisa F. Imundo, MD, discuss the differential diagnosis of chronic arthritis and give a more detailed description of oligoarticular and polyarticular types of JIA (see page 462). Arielle D. Hay, MD, and Norman D. Ilowite, MD, report on systemic JIA, a type of chronic arthritis seen almost exclusively in childhood, with prominent systemic inflammation, potentially destructive arthritis, and significant articular and extra-articular complications (see page 463).

Children who have in the past been diagnosed with “spondyloarthropathy” rarely had spine involvement including sacroiliitis. However, these children frequently had other disease characteristics that closely resembled extra-axial symptoms of adult patients with spondyloarthropathy. Many will grow to develop sacroiliitis or spine inflammation in early adulthood.

ILAR classification attempted to address these issues by creating a new type of JIA called enthesitis-related arthritis (ERA), stressing the frequent association of joint and enthesis inflammation. However, the diagnosis of ERA excludes patients with psoriasis (classified by ILAR criteria under psoriatic JIA) or inflammatory bowel disease-associated arthritis and reactive arthritis (not part of ILAR classification at all), although these conditions are associated with the higher risk of developing frank spondyloarthropathy. Clara Lin, MD, and myself address the confusing issue of juvenile arthritides related to spondyloarthropathy (see page 464).

Pharmacology has provided the greatest gains in outcomes for chronic pediatric arthritis over the past decade. Alice Y. Chan, MD, PhD, and myself describe indications, doses, side effects, and recommendations for pretreatment screening and laboratory follow-up for JIA drug therapies (see page 465).

Unfortunately, the saying “children outgrow arthritis” is often not true. In her short overview, Tara Valcarcel, RN, MSN, CPNP, provides recommendations on transitioning from pediatric to adult care for patients with this chronic condition (see page 469).

We hope that this issue of Pediatric Annals provides practical, useful, and “user friendly” information about the diagnosis, treatment, and follow-up of patients with JIA.

doi: 10.3928/00904481-20121022-07

About the Guest Editor
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Dr. Milojevic has been involved in numerous clinical trials in juvenile idiopathic arthritis and has received several research grants, including the American College of Rheumatology Academic Re-entry Award and the Arthritis Foundation Fellowship Award.