

Pediatric Rheums Advise Assertive JIA Approach

BY BETSY BATES

Juvenile idiopathic arthritis increasingly is being shown to respond well to treatment, yet therapeutic hesitation on the part of nonpediatric rheumatologists is working to the detriment of these young patients, according to pediatric rheumatologists interviewed for this story.

The well-documented critical shortage of pediatric rheumatologists has real consequences in this disease, they said. Further, good results are impeded when physicians rely on therapies that work well in adults but not in children and when physicians hesitate to use newer therapies such as biologic agents.

For Dr. Lawrence K. Jung, the disparity in care became personal when he moved from Omaha, where he felt he had a handle on the close-knit JIA population, to Children's National Medical Center in Washington, D.C., where he became chief of the division of rheumatology in a metropolitan area of over 5 million people.

"I'm seeing so many patients who have not seen a rheumatologist in 2 years and have gone for long periods of time without good care," he said.

"Most children with rheumatic conditions are still treated by pediatricians, internists, or adult rheumatologists," said Dr. Andreas Reiff, chief of pediatric rheumatology at Childrens Hospital Los Angeles, "They are often misdiagnosed, or treated with drugs used in adults, such as Plaquenil, hydroxychloroquine,

sulfasalazine, penicillamine, and steroids, which have been shown in a meta-analysis to be no better than placebo in children."

"There is really a critical timeline here," said Dr. Reiff. "It depends on the presentation and how quickly radiographic evidence develops, but we would usually start a child on biologics within 3 months of nonresponse or insufficient response or intolerance" to conventional treatments. Rarely would a nonrheumatologist act that fast.

Dr. Reiff said that his experiences at Childrens are an object lesson. For years, the hospital's rehabilitation center was filled with children with JIA who were there to receive splints and casts, undergo physical therapy, and recover from hip and knee replacement.

Last year, Dr. Reiff said, he resigned from his post as division head of the rehabilitation center. The reason: "Essentially, we had no more [JIA] patients there. Nowadays, we don't wait to treat kids until they're wheelchair bound and suffering severe joint problems."

Dozens of studies presented at American College of Rheumatology meetings and summarized in a review article by Dr. Murray Passo (*Curr. Probl. Pediatr. Adolesc. Health Care* 2006;36:97-103) have documented the short- and long-term safety and efficacy of various biologic agents, including etanercept (Enbrel), approved for children with JIA in 1998, and adalimumab (Humira), which received pediatric approval from the Food and

Drug Administration in 2008. Other biologics are also under study—and are sometimes used off label—for JIA, including infliximab (Remicade), an anti-tumor necrosis factor- α chimeric monoclonal antibody; anakinra (Kineret), a recombinant form of human interleukin-1 receptor antagonist; atlizumab, an anti-IL-6 receptor monoclonal antibody; and abatacept (Orencia), which selectively inhibits T-cell activation with the fusion protein CTLA41g.

"Many adult rheumatologists I work with may be very aggressive in treating arthritis in adults, but are unsure just how aggressive to be in children," said Dr. Passo of the division of pediatric rheumatology at the Medical University of South Carolina in Charleston. "With children, there are long-term side effects to worry about."

So far, the side-effect profile for children with JIA who take biologics has largely been benign, he said. Nevertheless, the drugs are new and their effect on children's health is not fully known.

The FDA is conducting an ongoing safety review of TNF blockers in children and young adults who are being treated for a variety of conditions. The FDA reported in a June 4, 2008, communication that 30 cancers—half of them lymphomas—had been reported in young people who were prescribed biologic therapies.

"Quite honestly, malignancy has not been a big issue" in the JIA population, said Dr. Passo. "The pediatric population

does not have the same propensity for lymphoma as [do] adults with rheumatoid arthritis and lupus, at least not that we have been able to prove."

Approximately 239 pediatric rheumatologists are licensed in the United States, but only about 125 of them treat patients, according to Dr. Reiff. At the same time, the American College of Rheumatology estimates that 300,000 children in this country have JIA. Simple arithmetic points to a level of need that is perhaps even greater than the 75% increase in the number of pediatric rheumatologists that was called for in a Department of Health and Human Services report to Congress in 2007.

At the time of that report, 13 states had no pediatric rheumatologist; 9 still don't, according to Dr. Passo. On average, families are required to travel 57 miles to see a pediatric rheumatologist.

Some adult rheumatologists, internists, pediatricians, and even orthopedic surgeons treat JIA with great skill and compassion, all of the experts interviewed for this story agreed. But nonpediatric rheumatologists balk when it comes to prescribing biologic therapies, which require finesse in family communication, administration, and monitoring. As a result, practical access to biologics is spotty and many children still live with preventable pain and progressive disability. As is the case with rheumatoid arthritis in adults, early diagnosis is imperative and disease-modifying drugs must be initiated before irreparable damage occurs, they said. ■

ASK THE EXPERT

Providing Child-Centered Care in an Adult Practice

Children with rheumatologic conditions deserve to be treated like children. Unfortunately, the pervasive shortage of pediatric rheumatologists means that children who need rheumatologic care often are seen by physicians who primarily treat adults, or by pediatricians who lack specialty training. We asked Dr. Eileen Baidam to discuss this issues.

RHEUMATOLOGY NEWS: What are some of the key practice considerations for treating pediatric rheumatology patients?

Dr. Baidam: It is vital that everyone involved in treating pediatric rheumatologic conditions be trained and skilled in working with children. Everyone, including administrative staff, who works in a clinic where children are treated should have undergone a police check to ensure that they have no convictions related to child abuse. There are many pediatric standards of care as well as specific legislation [in these areas], such as child protection and consent to treatment, that provide a framework within which those who provide services

for children need to remain. Adult practitioners who see children without complying with these standards open themselves to serious risk issues.



EILEEN BAILDAM, M.D.

RN: How does the care of children and adolescents with rheumatologic disease differ from that of adults?

Dr. Baidam: Children are subject to the same spectrum of rheumatic diseases as are adults, but often the presentation, severity, and outcome differ. For example, an expert in adult systemic lupus erythematosus might not readily recognize the disease in a child, in whom the skin involvement is much less obvious and serious organ disease much more common. In addition, children have completely different physiology, metabolism, pharmacodynamics, and pharmacokinetics than do adults, and these change throughout childhood. Even their normal ranges for vital signs such as pulse rate, respiratory rate, and blood pressure, and blood parameters such as white cell counts, alkaline phosphatase, and immunoglobulins vary significantly.

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In the treatment of children, approaches to history taking are also totally different, in that the reported history from a caregiver is not what the child actually experiences. Birth history, developmental history, and social and family factors are all vastly more important in childhood. Finally, the treating clinician has to consider the effect of the disease on growth and development, which is not a consideration in adult patients. The clinician has to be able to relate to children of all ages and has to be able to assess and recognize serious illness in a child who might be unable to articulate symptoms fully.

RN: What are the most important distinctions adult rheumatologists must be aware of when treating children?

Dr. Baidam: Children have a right to care in a child-focused environment. Facilities for taking blood from a child must include topical analgesia, distraction methods, small needles, methods that use small blood volumes, and, ideally, access to a play therapist for children with needle phobia. Children have a right to a quality of diagnosis and assessment that is as expert as possible, so awareness of the specific developmental issues that

may affect the assessment of the condition, acceptability of the treatment, and compliance with the treatment are important. An experienced practitioner will adapt his or her approach to each child's age and temperament.

RN: What important developments in pediatric rheumatology in recent years can help adult rheumatologists to optimize patient management?

Dr. Baidam: There are new classifications and diagnostic criteria for vasculitis and scleroderma in childhood, and there are increasing numbers of placebo-controlled drug trials in progress that are showing the efficacy of etanercept, adalimumab, leflunomide, and infliximab in juvenile idiopathic arthritis. Also, investigators have identified specific genes confirming the congenital nature of disorders such as CINCA/NOMID (chronic, infantile, neurologic, cutaneous, and articular syndrome/neonatal-onset multisystem inflammatory disease) and many of the periodic fever syndromes.

—Diana Mahoney

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