Anakrina Shows Benefit for Systemic-Onset JIA

BY JANE SALODOF MacNeil

VERSAILLES, FRANCE—Anakrina (Kinerey) is effective against systemic-onset juvenile idiopathic arthritis, Marilyn Punaro, M.D., reported at the annual scientific meeting of the European Rheumatology Congress.

Twelve of 13 children treated at Texas Scottish Rite Hospital for Children in Dallas responded to anakinra, an interleukin-1 receptor antagonist, according to a retrospective chart review presented by Dr. Punaro of the University of Texas Southwestern Medical School at Dallas.

Dr. Punaro noted that one went from active involvement of 34 joints to just two active joints. Two others, who had complete transient responses, flared after infections. Only one child, described as “the most consistently active patient,” did not benefit and has been taken off drug for lack of efficacy.

The children, nine girls and four boys, ranged in age from 2 to 17 years when they started on anakinra. Their average duration of disease was 44 months, with a range of 1-142 months. Four were having flares at the initiation of anakinra, according to Dr. Punaro.

When used as therapy, most patients were taking other agents, including corticosteroids, intravenous methylprednisolone and/or methotrexate. Two children discontinued infliximab when they started on anakinra.

After anakinra, none of the children continued intravenous methylprednisolone, according to Dr. Punaro. Physicians were able to taper the doses of all 11 children on corticosteroids.

Side effects did not increase with higher doses in initial nonresponders. “The real question here is, what is the dose?” Nobody knows the answer to that.”

Microarrays showed a direct correlation between degree of clinical and genetic responses Dr. Punaro added. She showed microarrays for three complete responders in which a genetic signature for systemic-onset juvenile idiopathic arthritis was visible. Changes in gene expression were less dramatic by comparison in children with lesser responses. “These are very preliminary data, but they suggest that [anakinra] may be useful,” she said.

Osteoarthritis and Rheumatoid Arthritis

Dosage and Administration

Carefully consider the potential benefits and risks of MOBIC and other treatment options before selecting an NSAID for the initial duration consistent with the indication. After observing the response to initial therapy with MOBIC, the dose should be adjusted to suit an individual patient’s needs.

For the relief of the signs and symptoms of osteoarthritis, the recommended starting and maintenance oral dose of MOBIC is 7.5 mg once daily. For the relief of the signs and symptoms of rheumatoid arthritis, the recommended starting and maintenance oral dose of MOBIC is 7.5 mg once daily.

Osteoarthritis and Rheumatoid Arthritis

To find genes more specific to SOJIA, investigators at the Baylor Institute for Immunology Research in Dallas have identified 12 genes that can distinguish systemic-onset juvenile idiopathic arthritis from other inflammatory conditions as well as from healthy controls.

The genes are part of a newly discovered 88 gene signature for systemic-onset juvenile idiopathic arthritis from other inflammatory conditions as well as from healthy controls. The genes are part of a newly discovered 88 gene signature for systemic-onset juvenile idiopathic arthritis from other inflammatory conditions as well as from healthy controls.

Dr. Punaro, who is also affiliated with the Texas Scottish Rite Hospital for Children in Dallas, said the researchers initially identified 40 genes associated with the disease by comparing 873 genes in microarrays from 44 SOJIA patients.

“Many genes that we find are shared by all these conditions, so we have to dig deeper, and we have done it,” she said.

To find genes more specific to SOJIA, the researchers screened 4,311 genes, which they eventually refined to the 88 gene signature. Among these, Dr. Pascual reported 12 appeared to be enough to distinguish SOJIA patients from healthy children, she continued, but from those with other inflammatory conditions. When investigators looked at arrays from children with Staphylococcus aureus, Streptococcus pneumoniae, Esherichia coli, influenza A, and systemic lupus erythematosus, it became apparent that many of the same genes were overexpressed in these other conditions as well as in SOJIA.

“We are very interested in following these patients,” Dr. Pascual said of the ongoing investigation. “It is going to be very important to find markers that can predict response to therapy.”