TNF-Blocker Approved for Juvenile Idiopathic Arthritis

BY ELIZABETH MECHCATIE
Senior Writer

The Food and Drug Administration's recent approval of the tumor necrosis factor blocker adalimumab for treating juvenile idiopathic arthritis makes it the first biologic treatment approved for this indication since the 1999 approval of the TNF-blocker etanercept.

Adalimumab was approved for reducing the signs and symptoms of moderately to severely active juvenile idiopathic arthritis (JIA) in patients aged 4 years and older, alone or in combination with methotrexate. It is administered by a subcutaneous injection every other week, at doses based on weight.

Adalimumab is "an excellent choice for children with severe arthritis who need an anti-TNF agent," Dr. Thomas Lehman, chief of the division of pediatric rheumatology, at the Hospital for Special Surgery, New York City, said in an interview. Although many children are initially controlled on etanercept, "those who break through often respond to Humira [adalimumab], as do most of those who do not respond to Enbrel [etanercept] initially," he said.

Dr. Lehman said that adalimumab has been used extensively in pediatric patients over the past 4 years. "We've had excellent success in children with severe arthritis or uveitis associated with juvenile arthritis who have not responded to Enbrel," he said. Dr. Lehman said he was not involved in the study that led to approval, but is a speaker for Abbott Laboratories, which markets adalimumab as Humira, and etanercept (Enbrel) manufacturer Amgen.

Approval was based on a four-phase, multicenter study of 171 children, aged 4-17 years with polyarticular JIA, with signs of active moderate or severe disease, despite previous treatment with NSAIDs, analgesics, corticosteroids, or disease-modifying antirheumatic drugs. (Patients who had been treated with biologic therapies before were excluded.) During the first phase, all patients received adalimumab for 16 weeks; 94% of those on methotrexate and 74% of those not on methotrexate had a pediatric American College of Rheumatology 30 response. These responders were randomized to continue to receive treatment or were switched to placebo; at the end of 32 weeks, significantly fewer of those who remained on adalimumab had disease flares, compared with those who were switched to placebo: Among those on methotrexate, 37% of those on adalimumab had a flare vs. 65% of those on placebo. Among those not on methotrexate, 43% of those on adalimumab had a flare vs. 71% of those on placebo.

ACR responses were maintained for up to 2 years among those who continued with treatment during the open-label extension phase of the study.

Overall, the type and frequency of adverse reactions were similar in the pediatric patients to those seen in adults. Neutropenia, streptococcal pharyngitis, increased aminotransferases, herpes zoster, myositis, metrorrhagia, and appendicitis were among the severe adverse reactions reported in the JIA study, according to Abbott. The labels for adalimumab and the other TNF blockers carry a black box warning about the risk of serious infections associated with treatment. In the JIA study, 4% of patients had a serious infection within about 2 years of starting treatment, and included herpes simplex, pneumonia, urinary tract infections, pharyngitis, and herpes zoster, according to Abbott. ■

New Approach to Plantar Fasciitis Pain Aims to Address Biomechanics

BY FRAN LOWRY
Orlando Bureau

ORLANDO — Botulinum toxin injected at the plantar fascia insertion and at the gastrocnemius-soleus complex relieved chronic plantar fasciitis pain better than did standard treatment, according to the findings of a small, randomized controlled trial.

Dr. Mehul J. Desai of George Washington University Hospital in Washington and associates randomly assigned 10 patients with chronic unilateral plantar fasciitis and a mean age of 35 years into two groups. The five patients in the experimental treatment group received 50 U of botulinum toxin type A at the plantar fascia insertion, 50 U at the motor point of the soleus muscle, and 25 U at both the medial and lateral gastrocnemius motor points. Patients in the standard treatment group received 50 U of botulinum toxin type A at the plantar fascia insertion and saline at the 3 other sites.

The patients were assessed before the injections, and at 4, 8, and 12 weeks following treatment.

At study completion, patients in the experimental treatment group went from 7.9 points on a 10-point visual analog scale to 1.9 points. By comparison, patients who received the standard treatment went from 4.4 points to 2.4 points. The difference between the two groups was significant, Dr. Desai reported at the annual meeting of the American Academy of Pain Medicine.

Gait also was substantially improved from baseline in the experimental treatment group, as shown by significant improvement in ankle and hip ranges of motion.

COURTESY DR. MEHUL J. DESAI

Botulinum toxin type A is injected locally, at the plantar fascia insertion site (shown), and distally.

Limited ankle dorsiflexion, secondary to a tight gastrocnemius-soleus complex, is the most important risk factor for the development of plantar fasciitis, according to Dr. Desai. "Our hope is that instead of just treating the symptom, which is at the plantar fascia, we are also treating the tight medial and lateral gastrocnemius and soleus muscles and thereby correcting the underlying biomechanical problem."

Dr. Desai disclosed no conflicts of interest. Funding for the study was provided by Allergan Inc., a producer of botulinum toxin type A. ■

MRI Overused to Assess Osteoarthritis Patients

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — Magnetic resonance imaging is often ordered before patients are referred for total knee arthroplasty, yet MRI confers minimal or no benefit, compared with taking weight-bearing and skyline patella-view x-rays of patients with osteoarthritis of the knee, according to Dr. Wayne M. Goldstein.

In a random sample of 50 patients referred for total knee arthroplasty within the past 2 years, Dr. Goldstein and his associates found that 32 had MRI of the knee. Most patients got no x-rays prior to the MRI. Given that knee MRI costs approximately 10 times more than x-rays, this is an example of wasteful spending in the health care industry, according to Dr. Goldstein, who reported the study results in a poster presentation at the annual meeting of the American Academy of Orthopaedic Surgeons.

"Possibly due to lack of musculoskeletal education, or possibly as a result of financial incentive due to ownership, MRI is sometimes ordered instead of x-rays. This study suggests the need for strict guidelines or credentialing of those who order musculoskeletal MRIs," said Dr. Goldstein of the University of Illinois, Chicago, and the Illinois Bone and Joint Institute, Morton Grove, Ill.

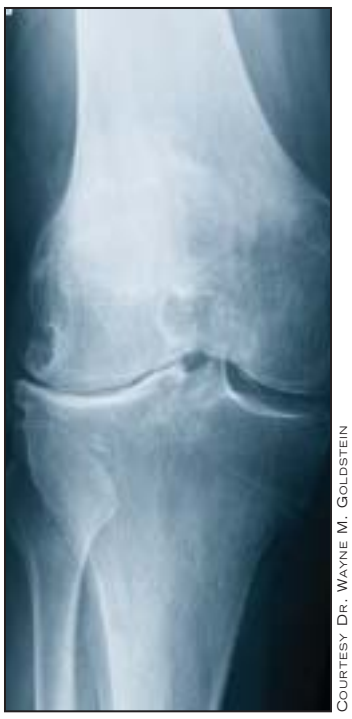
In their review, Dr. Goldstein and his associates determined whether patients had undergone MRIs by reviewing chart data and by calling the referring physicians. Patients in the study all had x-ray evidence of bone-on-bone articulation in one or more compartments.

"The patient is often referred by the primary care physician with the finding of 'torn meniscus,' and many patients expect an arthroscopy and seem upset that the orthopedic surgeon does not use the MRIs to make the diagnosis and direct treatment," he said.

An MRI can be useful in rare cases, usually in elderly women, to diagnose spontaneous osteonecrosis of the knee or a stress fracture. An example would be an elderly woman with a history of sudden onset of knee pain, especially on weight bearing, with localized tenderness on physical examination and normal findings on a complete series of x-rays.

This narrow usefulness of knee MRI "is, unfortunately, not apparent to a very small segment of orthopedic surgeons," who were among the referring physicians in the study, Dr. Goldstein said.

Dr. Goldstein routinely obtains radiographs of patients with knee osteoarthritis, including weight bearing and Rosenberg notch views. At his private group practice in Illinois, the charge for an MRI in 2007 was $1,116 (CPT code 73721), compared with $136 for a four-view x-ray series of the knee for arthritis (CPT code 73564). Medicare in 2007 reimbursed $471 for knee MRI and $42 for the x-ray series. In 2008, Medicare decreased reimbursement for the knee MRI to $457 and increased reimbursement for the radiographs to $43. Reimbursement for knee MRI can be significantly higher from commercial insurers.



COURTESY DR. WAYNE M. GOLDSTEIN

Osteoarthritis of the knee is a poor indication for MRI when a series of radiographs (example radiograph shown) will suffice.

Medical imaging comprises 10%-15% of Medicare payments to physicians today, compared with 5% a decade ago, and Medicare imaging costs are expected to keep growing at an annual rate of 20% or higher—outpacing the growth in cost for prescription drugs, Dr. Goldstein noted. "Overutilization of MRI contributes to cost, especially in a radiographically proven osteoarthritic knee," he said. ■