# Resuming Infliximab Seems Safe, Effective in AS

BY BARBARA J. RUTLEDGE
*Contributing Writer*

Readministration of infliximab was generally safe and effective in patients with ankylosing spondylitis who had previously discontinued treatment, reported Dr. Xenofon Baraliakos and colleagues.

Dr. Baraliakos, of Rheumazentrum Ruhrgebiet in Herne, Germany, and colleagues designed a study to evaluate the safety and efficacy of infliximab readministration in patients with ankylosing spondylitis who experienced clinical relapse following infliximab withdrawal (J. Rheumatol. 2007 Feb. 1; [Epub ahead of print]). The study population consisted of 42 patients with ankylosing spondylitis who had completed a 3-year, open-label extension study of continuous infliximab therapy administered by infusion at a dose of 5 mg/kg every 6 weeks.

Patients discontinued infliximab at the end of the third year of the open-label extension study. The date of infliximab withdrawal was defined as timepoint (TP) 1. Patients were assessed every 6 weeks after infliximab withdrawal for signs of disease flare, the investigators reported. Clinical relapse was defined by a Bath Ankylosing Spondylitis Disease Activity Index (BASDAI) score of 4 or greater and a physician's global assessment score of 4 or greater. Patients who experienced clinical relapse were reinfused with infliximab at a dose of 5 mg/kg. The time of clinical relapse was defined as TP2.

**Infliximab readministration after relapse lowered BASDAI scores, CRP levels, and ESRs.**

DR. BARALIAKOS

Patients were reinfused every 6 weeks after TP2 for the duration of the study. Clinical data were obtained at each visit throughout the study. Study-specific data were collected at the time of infliximab withdrawal, at the time of clinical relapse, and at 24 and 48 weeks after TP2.

Of the 42 patients who enrolled in the study, one remained in clinical remission 48 weeks after infliximab withdrawal, the investigators noted. The remaining 41 patients experienced clinical relapse and were reinfused. One patient, who received eight infusions, dropped out of the study because of repeated local infections.

Infliximab treatment can induce antibodies to infliximab, resulting in the possible loss of clinical efficacy, they noted. Due to measurement difficulties, antibody assays were regarded as inconclusive in patients who had detectable serum levels of infliximab. Of the 42 patients, 27 (64.3%) provided blood samples at the time of infliximab withdrawal, and 35 (83.3%) provided blood samples at clinical relapse. High serum levels of infliximab were detected in 24 (88.9%) of the 27 patients who provided blood samples at infliximab withdrawal, while high levels were detected in 18 patients (51.4%) who provided blood samples at clinical relapse.

One patient showed antibodies to infliximab at 6 weeks after withdrawal, despite an initial favorable response during the previous 3-year study, and no clinical relapse until 24 weeks. This patient withdrew from the study after eight infusions because of repeated local infections.

Among the patients who completed the study after infliximab readministration, mean BASDAI scores increased from 2.5 at the time of infliximab withdrawal to 6.0 at the time of clinical relapse. Mean BASDAI scores decreased following infliximab readministration, to mean values of 2.7 at week 24 to 2.6 at week 48. Median C-reactive protein levels increased from 1.0 at infliximab withdrawal to 11.2 at clinical relapse, dropping again after infliximab readministration to 1.6 at week 24 and 1.8 at week 48. Erythrocyte sedimentation rate showed a similar pattern, rising from median levels of 8 at infliximab withdrawal, to 24 at clinical relapse, and decreasing to 6 and 11 at weeks 24 and 48, respectively.

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# *Adalimumab Autoinjection Pen Preferred Over Prefilled Syringe*

BY MIRIAM E. TUCKER
*Senior Writer*

WASHINGTON — Patients with active rheumatoid arthritis preferred the adalimumab autoinjection pen device to the prefilled syringe in an Abbott-sponsored study, Dr. Martin Okun reported in a poster presentation at the annual meeting of the American Academy of Dermatology.

Adalimumab, a fully human IgG monoclonal anti–tumor necrosis factor, is approved for the treatment of adults with rheumatoid arthritis, psoriatic arthritis, and ankylosing spondylitis. It can be administered via subcutaneous injection with a prefilled syringe or by an autoinjection pen, which was developed to facilitate self-injection by patients with physically limiting autoimmune diseases, noted Dr. Okun of Abbott Laboratory's department of medical affairs.

The investigators evaluated existing data from an earlier open-label phase II study that was done in pursuit of the original Food and Drug Administration approval of 52 patients with active RA who self-administered 40 mg adalimumab subcutaneously with the syringe at visit 1, followed by the same dose via the pen at visits 2 (at week 2) and 3 (week 4). The patients chose the site—either thigh or abdomen—and maintained the same site for all three injections.

The patients had a mean age of 54 years and a mean RA duration of 8 years. Two-thirds were women, and the majority (88.5%) were white. They had been injecting adalimumab via syringe for a mean of 15 months.

On the 10-point visual analog scale, with 0 being "no pain" and 10 being "as bad as it could be," the patients rated their pain immediately following injection as a mean of 3.7 with the syringe at visit 1, compared with 2.3 and 2.0, respectively, for the pen at visits 2 and 3.

Overall, 40 patients (77%) deemed the pen to be less painful than the syringe, while 4 patients (8%) found the syringe less painful and 8 (15%) had no preference. Significant reductions in injection-site pain were observed at 15-30 minutes post injection with the pen, Dr. Okun reported.

Overall impressions of the injection experience with the pen were rated "favorable" or "extremely favorable" by 86.5% at visit 2 and 88.5% at visit 3, compared with just 32.6% for the syringe at visit 1. Overall preference was 88.5% for the pen compared with 5.8% for the syringe and 5.8% with no preference.

Reasons listed for preferring the pen included ease of use, convenience, time to inject (about 10 seconds versus 30 seconds for the syringe), safety, and "less pain." More than 94% of the patients said they would likely use the pen if it were available at the same cost as the syringe, and the same proportion said they would recommend the pen to another patient, Dr. Okun reported.

Poster session moderator Dr. Craig Leonardi, a dermatologist at St. Louis University, cautioned that patients must be trained to use the pen. "It's not sufficient to just prescribe the pen. You have to show patients how to use it. Otherwise they make mistakes." ■

# Inflammatory Hand Pain May Respond to Methylprednisolone

BY DIANA MAHONEY
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Intramuscular methylprednisolone can significantly improve symptoms and function in patients with inflammatory hand pain, a proof of concept study has shown.

To test the hypothesis that predominant hand pain with diurnal variation and morning stiffness lasting for at least 30 minutes has an inflammatory etiology and should respond to corticosteroids, Dr. Zunaid Karim of Chapel Allerton Hospital in Leeds, England, and colleagues evaluated the efficacy of intramuscular methylprednisolone treatment in 102 patients who presented to the Leeds Early Arthritis Clinic with more than 3 months of symptoms and who had failed to respond to nonsteroidal anti-inflammatory drugs (Ann. Rheum. Dis. 2007 Jan. 22 [Epub: doi:10.1136/ard.2006.061861]). Patients with clinical synovitis in five or more joints, as well as those with gout, connective tissue disease, or rheumatoid arthritis were excluded, as were those with sensitivity to corticosteroids or hydroxychloroquine.

The presence of two of the following three conditions was considered indicative of clinical synovitis: joint swelling, joint tenderness, and reduced range of movement. Ultrasound was performed on the second to fifth metacarpal, phalangeal, and proximal interphalangeal joints, and synovitis was defined as the presence of abnormally hypoechoic intra-articular tissue that was nondisplaceable and poorly compressible.

At baseline, 21% of the patients were rheumatoid factor positive, 25% had elevated C-reactive protein levels, and 5% tested positive for antinuclear antibodies, the authors reported. Additionally, 23% of the patients had clinical synovitis and 55% had ultrasound-detected synovitis.

Participating patients received an intramuscular injection of 120 mg of methylprednisolone at baseline and were assessed for response (defined as 50% improvement in pain and stiffness symptoms) at 4 weeks, then every 12 weeks for 48 weeks. Patients who responded initially but subsequently relapsed received an additional methylprednisolone injection and were started on 200 mg daily of hydroxychloroquine, with response assessment after 24 weeks.

Of the initial 102 patients, 11 did not complete the 4-week assessment and were excluded from the study. The remaining 91 patients, mean age 51 years, were predominantly female (81%) and had a mean symptom duration of 7 months.

Response at 4 weeks was observed in 66 of the 91 patients (73%), with associated significant reductions in morning stiffness, Health Assessment Questionnaire results, painful and tender joint counts, and patient visual analog scores, the authors wrote. Both ultrasound-detected synovitis and rheumatoid factor were associated significantly with methylprednisolone response, while clinical synovitis and elevated C-reactive protein were not, the investigators reported.

Of the 66 responders, 24 remained well to the end of the study. The remaining 42 patients relapsed within 24 weeks and received a repeat methylprednisolone injection and hydroxychloroquine. Of these patients, 28 remained on the drug long term and 24 of the 28 reported a benefit, the authors noted. The findings may be limited by the lack of sensitivity of the clinical synovitis assessment. Additionally, it is unclear whether the response seen in the hydroxychloroquine group is a function of the repeat methylprednisolone injection or the hydroxychloroquine. ■