Ustekinumab for Resistant Psoriatic Arthritis

To the Editor:

Ustekinumab is a human monoclonal antibody that targets the p40 subunit of both interleukin 12 (IL-12) and IL-23 and inhibits their activity. IL-12 and IL-23 have a key role in the differentiation and proliferation of Th1 and Th17 cell subsets. The efficacy of ustekinumab in psoriasis has been demonstrated in randomized controlled trials and it is currently licensed for the treatment of severe psoriasis. Ustekinumab was shown to have modest efficacy in a multicenter phase II study in patients with psoriatic arthritis (PsA)[1], although the American College of Rheumatology20 scores were lower than in comparable studies of tumor necrosis factor (TNF) inhibitors[2]. Some reports suggest that ustekinumab may not be as effective for arthritis as it is in psoriasis[3,4]. Data are emerging from phase III trials investigating the efficacy and safety of ustekinumab in active PsA for 615 patients who are naive to biologic drugs[5] and 180 patients previously treated with TNF inhibitors[6]. We describe the outcome in 2 patients with resistant PsA and severe psoriasis treated with ustekinumab.

Patient 1, a woman with plaque psoriasis and PsA without axial involvement, started adalimumab for polyarticular PsA at the age of 33 years, having failed sulfasalazine and methotrexate. Disease duration at the time of starting adalimumab was 4 years. Efficacy of adalimumab was lost after 14 months. Etanercept was prescribed but discontinued after 4 months because of an adverse skin reaction. Infliximab was effective but was discontinued after 10 months because of suspected drug-induced lupus (pericarditis and strongly positive antinuclear antibodies). Leflunomide was introduced, but moderate doses of prednisolone were still required to control joint inflammation. Adalimumab was reintroduced with no improvement in PsA and with deterioration in psoriasis. Ustekinumab 90 mg every 12 weeks (the recommended dose for the patient's weight of 103 kg) was prescribed by her dermatology team, resulting in dramatic improvement in both skin and joints. Swollen joint count (SJC), tender joint count (TJC), Health Assessment Questionnaire (HAQ), and Psoriasis Area and Severity Index (PASI) fell from 10, 16, 1.0, and 12.6, respectively, prior to starting ustekinumab to 4, 4, 0.25, and 2.2 at 3 months. The response was maintained at 2 years with scores of 2, 9, 0.125, and 2.4.

Patient 2, a man with erosive polyarticular PsA and psoriasis without axial disease, started adalimumab at age 45 years, having failed 2 disease-modifying drugs. Disease duration at the time of starting adalimumab was 13 years. Adalimumab was discontinued after 6 months because of deranged liver function. Etanercept was effective but was discontinued after 43 months because of deteriorating psoriasis. Infliximab was introduced but the arthritis and psoriasis remained active after 7 months. Ustekinumab 45 mg every 12 weeks was prescribed by his dermatology team. SJC, TJC, HAQ score, and PASI fell from 12, 10, 1.75, and 46.1 prior to starting ustekinumab to 2, 11, 1.25, and 3.9 at 6 months. The response was maintained at 1 year with scores of 3, 7, 1.625, and 0.6.

In these 2 patients with severe psoriasis and active PsA that were resistant to disease-modifying drugs and anti-TNF therapy, ustekinumab led to a sustained improvement in skin and joint disease. Ustekinumab should be considered as a treatment option for patients with active PsA and severe psoriasis who have failed to respond to anti-TNF agents.

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J Rheumatol 2013;40:2; doi:10.3899/jrheum.121152