Health-Related QOL Improved With Tofacitinib in Patients With Psoriasis

Written by Toni Rizzo

Moderate to severe plaque psoriasis has both physical [Strand V et al. *Ann Rheum Dis.* 2012; Reich A et al. *Acta Derm Venereol.* 2010] and psychological effects [Kurd SK et al. *Arch Dermatol.* 2010; Kimball AB et al. *Am J Clin Dermatol.* 2005], leading to major impairment of health-related quality of life (QOL). Tofacitinib, an oral Janus kinase inhibitor, was found to be effective in A Phase 3, Multi Site, Randomized, Double Blind, Placebo Controlled Study of the Efficacy and Safety Comparing CP- 690,550 and Etanercept in Subjects With Moderate to Severe Chronic Plaque Psoriasis [NCT01241591].

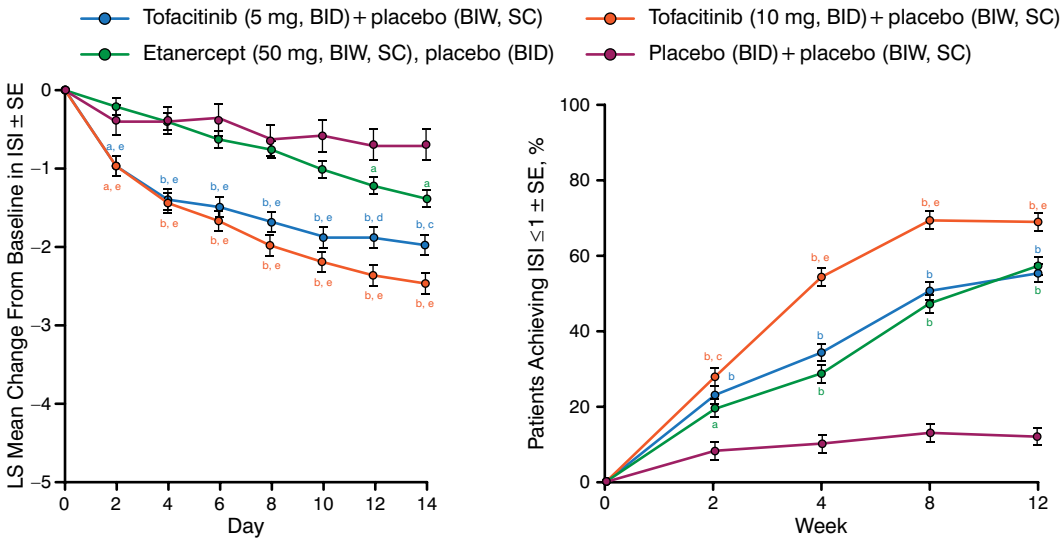
The objective of this analysis of the tofacitinib phase 3 trial, presented by Fernando Valenzuela, MD, University of Chile Clinical Hospital, Santiago, Chile, was to assess the effects of tofacitinib (5 and 10 mg, BID) versus etanercept or placebo on patient-reported outcomes. After a 4-week screening period, patients with psoriasis for ≥12 months were randomized 3:3:3:1 to tofacitinib, 5 mg (n = 330) or 10 mg (n = 332) BID, plus subcutaneous (SC) placebo twice weekly; etanercept, 50 mg, SC, twice weekly plus placebo BID (n = 336); or placebo BID plus SC placebo twice weekly (n = 108). The patients were stratified by the number of failed prior systemic therapies.

The main inclusion criteria were as follows: Psoriasis Area Severity Index ≥ 12; Physician's Global Assessment of moderate or severe psoriasis; psoriasis on ≥ 10% of the body surface area; and failed, intolerant, or contraindication to ≥ 1 systemic therapy (≥ 2 in some countries). Patients with nonplaque or drug-induced psoriasis or evidence of active infection were excluded. The patient-reported outcome end points assessed at week 12 were as follows: Dermatology Life Quality Index (DLQI), Itch Severity Item (ISI), Patient Global Assessment (PtGA), and Patient Satisfaction With Study Medication (PSSM).

Baseline patient demographics and disease characteristics were well balanced across the treatment groups. The mean baseline scores on several end points (including the DLQI, ISI, and PtGA) indicated a substantial disease burden on QOL in this patient population. The patients in both tofacitinib dosage groups experienced a rapid, significant improvement in itch severity as early as day 2 ($P < .05$; Figure 1). From week 2, among patients with a baseline ISI > 1, all active treatment groups had a significantly greater percentage of patients with ISI ≤ 1 (little to no itching) vs placebo ($P < .0001$).

At weeks 4 and 12, the mean DLQI score demonstrated significant improvement from baseline with tofacitinib (5 and 10 mg) and etanercept (50 mg) vs placebo ($P < .0001$ for all vs placebo at weeks 4 and 12; Figure 2). Among

Figure 1. Itch Severity Item Score Showed Rapid Improvement With Tofacitinib



BIW, twice weekly; ISI, Itch Severity Item; LS, least squares; SC, subcutaneous; SE, standard error.

[a]$P < .05$ vs placebo; [b]$P < .0001$ vs placebo; [c]$P < .05$ vs etanercept; [d]$P < .001$ vs etanercept; [e]$P < .0001$ vs etanercept.

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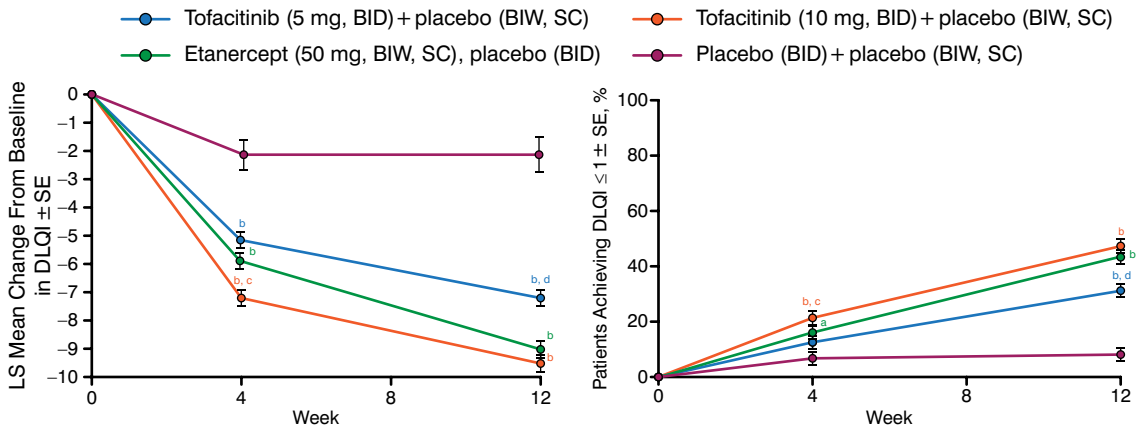
Figure 2. Dermatology Life Quality Index Score Improved With Tofacitinib



BIW, twice weekly; DLQI, Dermatology Life Quality Index; LS, least squares; SC, subcutaneous; SE, standard error.

[a]$P<.05$ vs placebo; [b]$P<.0001$ vs placebo; [c]$P<.05$ vs etanercept; [d]$P<.0001$ vs etanercept.

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patients with baseline DLQI > 1, significantly more patients receiving active treatment reported DLQI ≤ 1 (no effect of psoriasis on QOL) vs placebo ($P<.0001$).

From week 4, significantly more patients receiving active treatment reported a PtGA of "clear" or "almost clear" versus those receiving placebo ($P<.0001$). More than 50% of patients receiving tofacitinib (10 mg) or etanercept achieved a PtGA of "clear" or "almost clear." More than 70% of patients receiving active treatment were satisfied with their treatment at week 12, as assessed by the PSSM.

The results of this study demonstrated that patients treated with tofacitinib (5 or 10 mg, BID) exhibited significant improvement across multiple measures of health-related QOL when compared with placebo. These results suggest that oral tofacitinib may be an effective new treatment option for patients with moderate to severe chronic plaque psoriasis.

PIONEER II: Adalimumab Reduces Disease Activity in Patients With HS

Written by Maria Vinall

Hidradenitis suppurativa (HS) is a chronic, painful skin disease for which there is currently no approved treatment. Results from the Efficacy and Safety Study of Adalimumab in the Treatment of Hidradenitis Suppurativa [PIONEER II; NCT01468233] presented by Gregor Jemec, MD, University of Copenhagen, Roskilde, Denmark, show that patients with moderate-to-severe HS who are treated with adalimumab experience a clinically relevant reduction in objective disease activity and pain after 12 weeks.

HS is characterized by recurrent inflamed nodules, abscesses, and fistulas predominantly in the axillary, inguinal, and breast folds and the anogenital regions [Kurzen H et al. *Exp Dermatol.* 2008]. Adalimumab has been shown to alleviate moderate-to-severe symptoms and pain [Kimball A et al. *Ann Intern Med.* 2012] and improve treatment satisfaction among patients with HS [Jemec GB et al. *J Invest Dermatol.* 2014].

PIONEER II was a 12-week, phase 3, placebo-controlled trial designed to evaluate the safety and efficacy of adalimumab versus placebo in patients with moderate-to-severe HS. Subjects (n = 326) with a diagnosis of HS for ≥ 1 year, a total abscess and inflammatory nodule count ≥ 3, HS lesions in ≥ 2 body areas (1 at Hurley stage II or III), and no prior tumor necrosis factor–α–inhibitor treatment were randomized 1:1 to adalimumab (40 mg weekly after a loading dose of 160 mg at week 0 and 80 mg at week 2) or matching placebo.

The primary efficacy measure was HS Clinical Response (HiSCR; defined as ≥ 50% reduction from baseline in abscess and inflammatory nodule count, and no increase in abscess or draining fistula counts) at week 12. Patients (about 66% women) had a mean age of about 35 years, mean duration of disease of about 11 years, and mean numeric rating scale skin pain (worst in the prior 24 hours) of 4.5.

At 12 weeks, the HiSCR rate was significantly higher for patients treated with adalimumab (58.9%) compared with those receiving placebo (27.6%; $P<.001$). The effect was seen as early as week 2 and sustained to week 12.