Effects of Biologic Therapies on the Severity of Skin Symptoms and Quality of Life in Patients with Plaque-type Psoriasis: A Meta-Analysis

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Abstract

The efficacy of biologic treatments is well established in the treatment of moderate-to-severe plaque psoriasis. The purpose of this research was to compare PASI-75 response rates from randomised controlled trials (RCTs) and review quality of the biologic therapies.

A literature search was conducted to identify RCTs evaluating labelled doses for alefacept, etanercept, efalizumab and infliximab in psoriasis patients. A Mantel-Haenszel fixed-effects model was used to calculate relative risk (RR) with 95% confidence intervals for patients achieving PASI-75 responses following induction therapy (10–12 weeks of therapy) with a biologic versus placebo. In general, the quality of the QOLs, as measured by the disease-specific Dermatology Life Quality Index and generic SF-36, could not be assessed through statistical modeling. However, published data from RCTs were used to assess the impact of treatment on QOL.

Results

- Patients treated with infliximab 5mg/kg were most likely to achieve PASI-75 in placebo (RR=1.48; 95% CI=1.44-1.52; following by etanercept 50mg BIW (RR=1.47; 95% CI=1.41-1.55), etanercept 25mg SC twice a week (RR=1.41; 95% CI=1.37-1.45) and efalizumab 1mg/kg per week (RR=1.43; 95% CI=1.38-1.48) versus placebo.
- The PASI-75 response rate for infliximab in psoriasis patients. A Mantel-Haenszel fixed-effects model was used to calculate relative risk (RR) with 95% confidence intervals for patients achieving PASI-75 responses following induction therapy (10–12 weeks of therapy) with a biologic versus placebo. In general, the quality of the QOLs, as measured by the disease-specific Dermatology Life Quality Index and generic SF-36, could not be assessed through statistical modeling. However, published data from RCTs were used to assess the impact of treatment on QOL.

Conclusions

- A novel targeted T-cell modulator, efalizumab, was associated with numerically greater improvements from baseline in organ-specific QOLs (vs placebo) as assessed by the DLQI. 47.1% of patients receiving infliximab reported that psoriasis no longer had any effect on their health-related QOL (DLQI, 0) at week 12. 75% of patients receiving etanercept 25mg reported that psoriasis no longer had any effect on their health-related QOL (DLQI, 0) at week 12.

References

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