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THERAPY

Secukinumab improves symptoms of psoriatic arthritis

Despite the success of biologic therapy in the treatment of psoriatic arthritis (PsA), achieving efficient and long-lasting disease control is still problematic in many patients. In a study published in *The Lancet*, subcutaneous treatment with secukinumab, a human monoclonal antibody that inhibits IL-17A, ameliorated clinical symptoms in patients with PsA.

"IL-17A is an inflammatory cytokine that mediates many of the pathologic effects observed in people with psoriasis and PsA," explains Iain McInnes, the corresponding author of the study. Previous data from FUTURE 1 showed that intravenous secukinumab loading followed by subcutaneous administration was effective in alleviating PsA symptoms. In FUTURE 2, researchers evaluated the efficacy and safety of subcutaneous delivery only.

In this double-blind, phase 3 trial, patients from 76 medical centres in Asia, Australia, Canada, Europe and the USA who met the classification criteria for PsA and had active disease were randomly allocated in a 1:1:1:1 ratio to receive subcutaneous secukinumab 300 mg ($n = 100$), 150 mg ($n = 100$) or 75 mg ($n = 99$), or placebo ($n = 98$), once per week until week 4, and once every 4 weeks thereafter.

> "...researchers evaluated the efficacy and safety of subcutaneous delivery..."

The proportions of patients who achieved ACR20 responses at week 24 were significantly higher in all secukinumab groups than in the placebo group (300 mg 54%, $P < 0.0001$; 150 mg 51%, $P < 0.0001$; 75 mg 29%, $P < 0.0399$; placebo 15%). The 300 mg and 150 mg groups also had improvements in two psoriasis area-and-severity indexes (PASI75 and PASI90) and in 28-joint disease activity score using C-reactive protein (DAS28-CRP) when compared with the placebo group.

The frequency of adverse events (mainly upper respiratory tract infections and nasopharyngitis) that occurred in the placebo-controlled period of the trial was similar between all groups, with the exception of a marginally higher incidence of serious adverse events in the 300 mg and 75 mg groups (5% and 4%) than in the 150 mg and placebo groups (2% and 1%).

This is the first study showing improvement in PsA symptoms after subcutaneous secokinumab. "The next steps are to generate longer-term data to confirm the sustained efficacy, safety and tolerability of this approach," adds McInnes, "and to decipher the appropriate order of use of available therapeutics in PsA."

João H. Duarte

Original article McInnes, I. B. *et al.* Secukinumab, a human anti-interleukin-17A monoclonal antibody, in patients with psoriatic arthritis (FUTURE 2): a randomised, double-blind, placebo-controlled, phase 3 trial. *Lancet* doi:10.1016/S0140-6736(15)61134-5