Tildrakizumab treatment significantly improved several joint and skin manifestations of psoriatic arthritis.

INTRODUCTION
Psoriatic arthritis (shortened to PsA) is a chronic inflammatory disease that affects a person’s joints, causing pain and disability. The disease often causes swelling of the fingers and toes. It gets its name from the link between this type of arthritis and a skin condition called psoriasis, which causes redness and scaling.

There are many different types of treatments available for people with psoriatic arthritis. Tildrakizumab is a new drug in a group of medicines called biologic disease-modifying antirheumatic drugs (sometimes also called biologics, or shortened to bDMARDs). These drugs work by targeting specific molecules that cause inflammation. By doing so they reduce inflammation in the joints, and decrease pain and disease worsening. Tildrakizumab, which targets a molecule named interleukin-23, is approved in the USA, Europe, Australia, and Japan for the treatment of skin psoriasis.

WHAT DID THE AUTHORS HOPE TO FIND?
The authors hoped to learn whether the tildrakizumab is effective and safe for the treatment of psoriatic arthritis as well as skin psoriasis.

WHO WAS STUDIED?
The study looked at 391 adults who had been diagnosed with psoriatic arthritis more than 6 months before the start of the study. Everyone taking part had three or more tender and swollen joints. People were included from 74 clinical sites in 8 countries.

HOW WAS THE STUDY CONDUCTED?
This was a randomised, double-blind, placebo-controlled study. This means people who agreed to take part were assigned by chance to one of five different treatment groups. Using chance in this way means that the groups are similar and allow the effects of the drug under investigation to be compared objectively.

Patients were randomised to receive one of four different dose regimens of tildrakizumab – ranging from 200 mg every 4 weeks down to 20 mg every 12 weeks – or placebo for 24 weeks. After Week 24, people who had received placebo or the lowest dose of tildrakizumab were switched to a higher dose of tildrakizumab. Everybody continued treatment for 52 weeks in total.

WHAT WERE THE MAIN FINDINGS OF THE STUDY?
The main finding was that, compared to placebo, tildrakizumab 200 or 100 mg improved the signs and symptoms of psoriatic arthritis. Greater improvements were seen for joint and skin symptoms, as well as people’s self-reported physical function after 24 weeks. Tildrakizumab was generally well tolerated for up to 52 weeks, and safety findings were similar to those in the clinical trials done in people with just skin psoriasis.

ARE THESE FINDINGS NEW?
Yes, this is the first study of tildrakizumab treatment in people with psoriatic arthritis.

WHAT ARE THE LIMITATIONS OF THE STUDY?
More people than expected responded to placebo treatment, which made the results difficult to interpret. The study was not designed to examine subgroups of people – and did not include enough people to do so conclusively. Because of this, the authors were not able to determine whether any particular characteristics could explain the high placebo response rate. It was also difficult to distinguish among the tildrakizumab doses. Additionally, effects on enthesitis (inflammation where tendons or ligaments attach to the bone) and dactylitis (swelling of fingers and toes) could not be detected in this study because relatively few people with these conditions were enrolled.
WHAT DO THE AUTHORS PLAN TO DO WITH THIS INFORMATION?
The results of this study were used to inform two large trials that are already ongoing. These are called INSPIRE 1 and INSPIRE 2, and are investigating tildrakizumab in more people with psoriatic arthritis.

WHAT DOES THIS MEAN FOR ME?
If you have psoriatic arthritis, there are new treatment options in development.
    If you have any concerns about your disease or its treatment, you should talk to your doctor.

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