Two experimental drugs could improve psoriasis treatment

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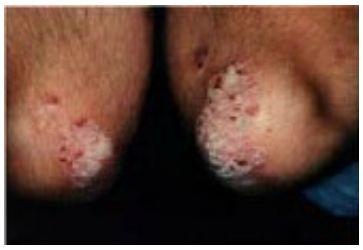

Both medications reduced skin lesions, had few side effects, studies show.

(HealthDay) -- A new type of treatment may be on the horizon for people with moderate to severe cases of the chronic skin condition known as psoriasis.

Two studies, published in the March 29 issue of the New England Journal of Medicine, found that drugs that interfere with an immune system molecule called interleukin-17 (IL-17) led to significant improvements in skin lesions for more than 75 percent of patients over a 12-week period.

Both studies were phase 2 clinical trials, which researchers conduct to determine the safest and most effective dose. The drugs next have to be tested in more people over a longer period of time.

Although the effectiveness of IL-17 inhibitors seems similar to that of other biologic drugs for psoriasis that are already on the market, such as Enbrel and Stelara, these drugs could offer patients more and possibly safer options, said Dr. Craig Leonardi, a clinical professor of dermatology at Saint Louis University who was involved in both IL-17 studies.

"Not every drug works in every patient, but there is also a phenomenon with these biologic drugs, some call it 'biologic fatigue,' where these drugs seem to lose efficacy over time," Leonardi said.

IL-17 inhibitors could be new options for these patients.

Psoriasis is an autoimmune disease that affects up to 7.5 million people in the United States, according to the National Psoriasis Foundation. People with moderate psoriasis have red, inflamed lesions covering between 3 percent and 10 percent of their body. For these patients, doctors generally prescribe biologics, including TNF inhibitors like Enbrel, Humira, Remicade or Stelara.

The current studies tested a drug that directly blocks IL-17 and a drug that blocks an IL-17 receptor, which IL-17 has to bind to in order to exert its effects on the immune system. The studies divided patients into several groups receiving different doses of either drug or an inactive placebo, and injected patients every one, two or four weeks, depending on the drug and dose.

Both studies were funded by pharmaceutical companies. Eli Lilly supported the study of the direct IL-17 inhibitor. Amgen supported the trial of the inhibitor of the IL-17 receptor.

Researchers found that the drug that directly blocks IL-17, called ixekizumab, improved psoriasis plaques by 75 percent for about 77 percent of patients at the lowest effective dose and for 82 percent patients at the highest dose after 12 weeks. Between about 38 percent and 39 percent of patients had a 100 percent improvement in lesions in that time period.

With the other drug, brodalumab, researchers saw an improvement of at least 75 percent after 12 weeks in 77 and 82 percent of patients at the middle doses. On average, patients' lesions improved by 45 percent, 76 percent and 86 percent at the different doses tested.

The two drugs were similar in their effectiveness, according to Leonardi, who was the lead author on

the ixekizumab trial and a co-author on the brodalumab trial.

The most common side effects of the drugs were infections and inflammation in the upper respiratory tract and injection site reactions.

The researchers did not see any serious side effects with ixekizumab. Serious side effects were rare in the brodalumab trial, but they included a drop in the number of immune cells, severe kidney pain and ectopic pregnancy.

Leonardi said that the lack of side effects was impressive. "These two IL-17 drugs were some of the quietest trials I've ever participated in." However, "the qualifier is we've got to go through phase 3," he added.

So far, the IL-17 inhibitors have also not been associated with an increased risk of heart attack or stroke. This is notable, Leonardi said, because there is some concern after previous research suggesting that Stelara could increase the risk of these diseases. (Leonardi was also involved in studies of Stelara.)

In theory, inhibiting IL-17 could be a safer treatment option than other biologics because IL-17 is considered to be the molecule that is largely responsible for psoriasis. In fact, researchers learned about the importance of IL-17 after realizing that one of the interleukins that Stelara suppresses actually leads to the inhibition of IL-17, Leonardi explained.

"If you are more specific at targeting what's abnormal with psoriasis, you could lead to a lower risk of side effects," said Dr. Lawrence Green, a dermatologist in the Washington, D.C. area who was not involved in the latest research.

Green has received research and speaking fees from Amgen as well as other companies that make psoriasis drugs, including Stelara.

However, IL-17 inhibitors will suppress the immune system, just like other psoriasis drugs, so there is always the possibility of an increased risk of infection, Green said.

"The most important reason it is nice to have different medications out there is that some patients don't respond to TNF inhibitors or Stelara," he added.

"For those people already doing well on TNF inhibitors, there's no reason to change, but it's fantastic for those people who can't take them anymore. Now you have an alternative and you can feel better about controlling the condition for the rest of your life," Green explained.

If the IL-17 inhibitors are effective and safe in patients in phase 3 clinical trials, these drugs could be available for patients in two to three years, Leonardi said.

Researchers are also studying IL-17 inhibitors as possible treatments for rheumatoid arthritis.

More information: To learn more about psoriasis, visit the National Psoriasis Foundation.