Lesinurad in combination with allopurinol lowers uric acid levels better than allopurinol alone in people with gout.

**INTRODUCTION**
Gout is a very common condition. It is caused by deposits of crystals of a substance called uric acid (also known as urate) in the joints, which leads to inflammation. Periods of time when you have gout symptoms are called flares. Flares can be unpredictable and debilitating, developing over a few hours and causing severe pain in the joints.

Allopurinol is a medicine that is commonly used to lower uric acid levels in people with gout. Lesinurad is a new medicine that reduces the amount of uric acid the kidneys can reabsorb, which means that it is excreted from the body in the urine and is not deposited in the joints.

**WHAT DID THE AUTHORS HOPE TO FIND?**
The authors wanted to see whether taking both lesinurad and allopurinol could improve the effects that people with gout get from their treatment.

**WHO WAS STUDIED?**
The study included 610 people with gout who could not control their disease with allopurinol on its own. Everyone was over the age of 18, and had a body mass index (often shortened to BMI) less than 45. The study took place in 12 countries in Europe, North America, South Africa, Australia and New Zealand.

**HOW WAS THE STUDY CONDUCTED?**
The CLEAR-2 study was a double-blind, randomised clinical trial, which means that people were assigned by chance to one of three treatment groups to receive either lesinurad at a dose of 200 mg, lesinurad at a dose of 400 mg, or a placebo (dummy drug) in addition to the allopurinol they were already taking. Using chance in this way means that the groups will be similar and will allow the variable or treatment under investigation to be compared objectively. During the treatment neither the patients nor their doctors knew which group they were in. The study was designed to see how many people achieved a target of less than 6 mg/dL uric acid in their blood after 6 months. Under this target level, new urate crystals cannot form.

**WHAT WERE THE MAIN FINDINGS OF THE STUDY?**
Significantly more people taking 200 mg of lesinurad a day plus allopurinol achieved the target for their uric acid levels in their blood after 6 months compared to people taking placebo plus allopurinol. Lesinurad 400 mg was also very effective in lowering uric acid. However, people taking the higher dose had more side effects, while those taking the lower dose had similar numbers of side effects to people taking allopurinol and placebo.

**ARE THESE FINDINGS NEW?**
Yes, and they have been repeated in an identical study in the USA.

**WHAT ARE THE LIMITATIONS OF THIS STUDY?**
This study has only limited information on people who take allopurinol at doses greater than 300 mg. There were also relatively few women studied. Finally, the short duration of the study meant that it was not able to study whether the medicines stopped people having flares of their gout, or if they had an effect on the deposits of urate in people’s joints.

**WHAT DO THE AUTHORS PLAN ON DOING WITH THIS INFORMATION?**
This study was extended to carry on collecting data, and it is hoped that will be published. Data from the study have also been shared at medical conferences.
WHAT DOES THIS MEAN FOR ME?
If you have gout, there may be new treatment options available for you to try to reduce your uric acid levels in the future. If you would like to know more about lesinurad or other treatment options, you should speak to your doctor.

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