

Promising early results for new rheumatoid arthritis treatment

INTRODUCTION

An early trial of a new drug called mavrimumab suggests that it may become a useful new treatment for people with moderate to severe rheumatoid arthritis.

WHAT DO WE KNOW ALREADY?

Despite big steps forward in the treatment of rheumatoid arthritis in recent years, there are still many people who don't benefit much from the available treatments, or who improve for a short period before their symptoms get worse again. So the search goes on for new drugs that might help a wider group of people.

Mavrimumab is a type of drug called a monoclonal antibody. It is thought to work by controlling the number of cells in the body called macrophages. Macrophages are vital in keeping our internal organs clean and healthy – particularly the lungs. But in people with rheumatoid arthritis it is thought that they play a part in the painful swelling of the joints, called synovitis.

To find out whether controlling macrophages with mavrimumab might help reduce synovitis, the authors of the new study randomly divided about 240 people with moderate to severe rheumatoid arthritis into five groups. In the first group, people took methotrexate (an established treatment for rheumatoid arthritis) plus a placebo (a dummy treatment). In the other four groups, people took methotrexate plus one of four different doses of mavrimumab (10, 30, 50, or 100 milligrams). The people in the groups and their doctors didn't know whether they were taking mavrimumab or the placebo.

After 12 weeks, the researchers checked how many people had reduced their symptoms and signs of rheumatoid arthritis as measured by the Disease Activity Score (called DAS-28) by at least 1.2.

WHAT DOES THE NEW STUDY SAY?

Across the four groups taking methotrexate plus mavrimumab, about 56 in 100 people had met the target reduction in DAS-28, compared with 35 in 100 people taking methotrexate plus placebo. When the researchers broke the figures down between the four groups, though, only the people taking the 30 milligram and 100 milligram doses did significantly better than those taking the placebo. People taking 100 milligrams did the best, with 67 in 100 achieving the target reduction in DAS-28.

The researchers didn't find any serious side effects related to mavrimumab. They were particularly interested to see if anyone developed lung problems, as macrophages are known to be important in keeping the lungs healthy. No one taking the drug had lung problems.

HOW RELIABLE ARE THE FINDINGS?

This was a well-conducted study with promising results. But it's important to remember that it was quite small – there were only about 40 people in each of the groups taking the new drug. This is also important to bear in mind when thinking about side effects. For example, although no one had lung problems after taking mavrimumab, it may be that the study was simply too small for that kind of side effect to show up.

It's also not clear what the most useful dose of mavrimumab might be. The people who did best in the study were those who took the highest dose (100 milligrams). But more studies are needed to find out whether this dose offers the best balance between relieving symptoms and causing possible side effects – possibly by reducing the number of macrophages too much.

WHAT DOES THIS MEAN FOR ME?

Any new advance in the treatment of rheumatoid arthritis will be welcomed by the many people who aren't helped enough by the available treatments. But it is likely to be a while before mavrimumab is available. The good news seems to be that the advances made in recent years are still going on, and that effective new drugs may be around the corner.

Disclaimer: This is a summary of a scientific article written by a medical professional (“the Original Article”). The Summary is written to assist non medically trained readers to understand general points of the Original Article. It should not be relied on in any way whatsoever, (which also means the Summary is not medical advice), and is simply supplied to aid a lay understanding of general points of the Original Article. It is supplied “as is” without any warranty. You should note that the Original Article (and Summary) may not be accurate as errors can occur and also may be out of date as medical science is constantly changing. **It is very important that readers not rely on the content in the Summary and consult their medical professionals for all aspects of**

their health care. Do not use this Summary as medical advice even if the Summary is supplied to the reader by a medical professional. Please view our full [Website Terms and Conditions](#).

Date summary prepared: June 2013

Summary based on research article published on: 12th December 2012.

From: Burmester GR, Weinblatt ME, McInnes IB, et al. Efficacy and safety of mavrilimumab in subjects with rheumatoid arthritis. *Ann Rheum Dis* 2013;72:1445–52.

Copyright © 2015 BMJ Publishing Group Ltd & European League Against Rheumatism. Medical professionals may print copies for their and their patients and students non commercial use. Other individuals may print a single copy for their personal, non commercial use. For other uses please contact our [Rights and Licensing Team](#).