Promising early results for new rheumatoid arthritis treatment

INTRODUCTION
An early trial of a new drug called mavrilimumab 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.

Mavrilimumab 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 mavrilimumab 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 mavrilimumab (10, 30, 50, or 100 milligrams). The people in the groups and their doctors didn’t know whether they were taking mavrilimumab 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 mavrilimumab, 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 mavrilimumab. 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 mavrilimumab, 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 mavrilimumab 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 mavrilimumab 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.

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