

Lay summaries for the non-clinician

How do you measure heart-disease risk in people with rheumatoid arthritis?

INTRODUCTION

A test called carotid ultrasound may be the best way to tell whether individuals with rheumatoid arthritis are at high risk of heart disease, according to a new study.

WHAT DO WE KNOW ALREADY?

As a general rule, we know that people with rheumatoid arthritis have a higher risk of heart disease compared with the general population. Doctors aren't sure why this is, but they think that the inflammation (swelling) that affects the joints might affect other parts of the body, such as the arteries. It is thought that this inflammation might increase the chance of hardening of the arteries, which may lead to heart and circulation problems.

So it's important that people with rheumatoid arthritis know whether they are at high risk of heart disease. If people know they are more likely than usual to have heart problems, there are things they can do about it, such as stopping smoking, changing their diet, taking more exercise, and losing weight if they are overweight.

But the usual ways of checking heart-disease risk aren't very useful for many people with rheumatoid arthritis. For example, a method called SCORE (Systematic COronary Risk Evaluation) can work out people's risk of heart problems based on so-called 'risk factors'. These include things like whether they smoke, their age, their sex (men are more likely to have heart problems), their blood pressure, and their cholesterol level. But tools like this don't take into account the extra heart-disease risk in people with rheumatoid arthritis. So they are likely to miss people with rheumatoid arthritis who are at risk.

The new study looked at two ways of checking heart-disease risk in people with rheumatoid arthritis, carotid ultrasound, and the Coronary Artery Calcification Score – CACS for short. Previous studies have shown that both of these tests are better than tools like SCORE at showing heart-disease risk in people with rheumatoid arthritis.

Now the researchers wanted to find out which test was the most reliable. They examined 95 people with rheumatoid arthritis who had never had any heart problems, and whose average age was 59. The people were given both tests, and the results were compared to see which test was the best at detecting who was at high risk of heart disease.

The tests work in slightly different ways. With CACS, your doctor adds up a score based on how much calcium you have in six major arteries. With carotid ultrasound, your doctor looks for two things: thickening of the artery walls and the build up of substances called plaques in the arteries, which can cause the blood vessels to become too narrow. Both these tests involve a doctor using a scanner. They don't hurt, there are no needles, and the doctor doesn't need to take your blood.

WHAT DOES THE NEW STUDY SAY?

The study found that carotid ultrasound was better at detecting which people with rheumatoid arthritis were more likely to get heart disease. When compared with the SCORE system, testing with CACS found an extra 12 people who were at high risk, who had been missed by the SCORE test. But testing with carotid ultrasound found an extra 51 people at high risk who had been missed when tested with SCORE.

HOW RELIABLE ARE THE FINDINGS?

The main reason to be cautious about this study is that it's quite small. It's also important to remember that tests like the ones in this study can't say who will definitely develop heart problems. They can only tell us who is more likely to have problems, based on doctors' past experience.

WHAT DOES THIS MEAN FOR ME?

If you have rheumatoid arthritis it's important to know that you may have a greater chance than most people of getting heart disease. Having a test like carotid ultrasound can help show you how big that risk might be. If you are at higher risk you can make changes to your lifestyle, and get treatment to lower your blood pressure and the amount of fats in your blood.

But even without a test, it may be more important for you than for most people to look after your heart. If you want to know more about tests like carotid ultrasound, or about avoiding heart problems, you can talk to your doctor or rheumatologist.

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