

VTE risk increases with disease activity in RA



There is a strong association between disease activity and the risk of blood clots in people with rheumatoid arthritis

INTRODUCTION

Rheumatoid arthritis is a chronic inflammatory disease that can affect a person's joints, and may cause pain and disability. Rheumatoid arthritis can affect people of all ages, but it most often starts between the ages of 30 and 50 – although this can depend on where you live. Rheumatoid arthritis is more common in women than men.

Venous thromboembolism (often shortened to VTE) is when a blood clot forms in a vein. There are two types of VTE. The first is *deep vein thrombosis*, when the clot is in one of the deep veins usually in the legs, pelvis, or arms. The second type is *pulmonary embolism*, when the clot dislodges and ends up in the lungs. People with rheumatoid arthritis have a higher risk of VTE than people without rheumatoid arthritis, but it is not known what causes this.

WHAT DID THE AUTHORS HOPE TO FIND?

The authors wanted to find out whether having rheumatoid arthritis affects the risk of VTE compared to people without rheumatoid arthritis. They also wanted to see whether disease activity in people with rheumatoid arthritis affects their risk of developing VTE, and to understand what the actual risks are.

WHO WAS STUDIED?

The study looked at over 46,000 people with rheumatoid arthritis. Everybody was over the age of 18, and was being treated by a rheumatologist in Sweden.

HOW WAS THE STUDY CONDUCTED?

This was a retrospective epidemiological study using the Swedish Rheumatology Quality Register (SRQ). This means the authors looked back at events that had already occurred, using data entered by the physician and the patient at each visit, and a disease activity score (often referred to as the DAS28). This score is used to measure disease activity in people with rheumatoid arthritis. The authors collected information logged in the SRQ database between 2006 and 2018.

The authors then used national patient healthcare records from hospitals and pharmacies to get information about VTE events that occurring in the year following each visit to the rheumatologist.

WHAT WERE THE MAIN FINDINGS OF THE STUDY?

The main finding was that the risk of VTE was twice as high for people with high disease activity compared to those in remission (where there are no signs or symptoms of the disease). Over 12 years, there were 2,241 VTE events in 46,316 people with rheumatoid arthritis. The risk of developing a VTE within 1 year was around 0.5% for people in remission compared to 1.1% for people with high disease activity.

In people with high disease activity, the risk of VTE was higher for those with a history of a previous VTE compared to people with high disease activity who had not had a VTE before. In these people with rheumatoid arthritis, high disease activity and a previous VTE, the risk of developing another VTE within 1 year was 8%.

The authors also found that the risk of VTE generally in people with rheumatoid arthritis was almost twice as high as in people without rheumatoid arthritis. However, it was only about 30% higher for people in remission, while the risk for those with high disease activity was almost tripled compared to the general population.

ARE THESE FINDINGS NEW?

Yes. No previous study has specifically looked at the association between disease activity in people with rheumatoid arthritis and the risk of VTE. Previous studies have focused on other aspects of VTE risk, such as comparing people with and without rheumatoid arthritis, and investigating how anti-rheumatic drugs affect the risk.

WHAT ARE THE LIMITATIONS OF THE STUDY?

In studies like this that rely on a database of information that has already been collected, there is always a risk of misclassification – for example, somebody might have entered a VTE diagnosis code in error. This means we cannot know for sure if all the information is correct. However, the databases used in this study have all been proven to be of high quality. The authors think it is unlikely that missing data or errors would affect the results in any significant way. This study was able to determine the presence of a strong association between disease activity and risk of VTE in people with rheumatoid arthritis. However, this study does not tell us whether it is the high disease activity itself – or other factors associated with high disease activity – that drives the increased risk of VTE.

WHAT DO THE AUTHORS PLAN ON DOING WITH THIS INFORMATION?

The authors are planning to study other aspects of VTE risk in people with rheumatoid arthritis, such as how anti-rheumatic drugs affect the risk.

WHAT DOES THIS MEAN FOR ME?

If you have rheumatoid arthritis, you have a higher risk of VTE than other people. However, the numbers are still small. Generally, you should not worry about developing a VTE.

During times when your disease activity is high, both you and your treating rheumatologist should be aware that the risk of VTE is increased. This is especially important if you have a history of VTE or any other known risk factors, such as old age, having cancer, or being pregnant. Most importantly, these data provide yet another piece of evidence about how important it is to control your disease activity, and to try to reach remission.

If you have any concerns about your disease or its treatment, you should talk to your doctor.

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