

TNF inhibitors can be used after JAK inhibitors



People with an insufficient response to adalimumab or upadacitinib achieved better responses after switching to the alternative.

INTRODUCTION

Rheumatoid arthritis is a chronic inflammatory disease that affects a person's joints, causing pain and disability. Rheumatoid arthritis affects people of all ages, and is more common in women than men.

Treatments for rheumatoid arthritis aim to improve people's symptoms and stop joint damage from happening. There are lots of different drugs available, and if people don't get a good response from one, they might be moved to a different type – this is called switching. Research is done on switching between drugs to make sure that it is safe to move between them, and to see whether they work best when taken in a particular order.

Methotrexate is a disease-modifying antirheumatic drug (also called a DMARD). Methotrexate is often considered to be the anchor drug in the treatment of rheumatoid arthritis, and it is recommended as the first drug to be used in people with the disease.

Newer drugs with biologic activity (often called biologics or bDMARDs) have been developed for the treatment of rheumatoid arthritis. These include TNF inhibitors such as adalimumab, etanercept, infliximab, golimumab and certolizumab-pegol. These drugs work by targeting specific molecules that cause inflammation. By doing so, they reduce inflammation in the joints and decrease pain and disease worsening in rheumatoid arthritis. TNF inhibitors are given as an injection or infusion.

An even newer group of medicines is the Janus kinase (or JAK) inhibitors, such as baricitinib, tofacitinib, and upadacitinib. These medicines also target molecules involved in inflammation, but in a different way to bDMARDs. JAK inhibitors are given as oral tablets.

WHAT DID THE AUTHORS HOPE TO FIND?

The authors hoped to find out whether upadacitinib would work better than adalimumab over 48 weeks. They also wanted to know if people who did not get an improvement would do better when they switched treatments.

WHO WAS STUDIED?

The study looked at 1629 people with rheumatoid arthritis. Everyone in the study had tried a drug called methotrexate before, but had an incomplete response.

HOW WAS THE STUDY CONDUCTED?

This was a randomised, double-blind trial, which means that patients were assigned by chance to one of three treatment groups to receive upadacitinib, adalimumab or placebo. 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. Everybody also carried on taking methotrexate. During the treatment neither patients nor their doctors knew which group they were in. People were switched from adalimumab to upadacitinib or from upadacitinib to adalimumab if they did not see a good improvement in their disease. After 26 weeks, everybody taking placebo switched to upadacitinib.

Results have already been shared from earlier in the study. This report looked at how well people were still doing after 48 weeks, and whether they had needed to switch drugs.

WHAT WERE THE MAIN FINDINGS OF THE STUDY?

There were two main findings. The first was that the improvements seen with upadacitinib and adalimumab lasted over the 48 weeks, and so did the advantages of upadacitinib. The second finding was that for people who did not have a response to either upadacitinib or adalimumab, switching to the other drug was often effective. This was already known for switching from TNF inhibitor to JAK inhibitors, but not for switching from a JAK inhibitor to a TNF inhibitor.

There were no new safety findings.

ARE THESE FINDINGS NEW?

Yes, switching between similar types of drugs has been studied before, but this is the first report of a TNF inhibitor working in people who had not done well on a JAK inhibitor.

WHAT ARE THE LIMITATIONS OF THE STUDY?

These types of trials have very strict rules for who can take part. This means that the results may not apply to everyone with rheumatoid arthritis. More studies will be needed in different groups of patients.

WHAT DO THE AUTHORS PLAN ON DOING WITH THIS INFORMATION?

This information will be shared with experts in the rheumatology field.

WHAT DOES THIS MEAN FOR ME?

If you have rheumatoid arthritis, there may be new treatment options available for you to try if you have not done well on methotrexate, and before you try a TNF inhibitor.

If you have any concerns about your disease or its treatment, you should talk to your doctor. It is important that you do not stop taking any medicine you have been prescribed without getting proper medical advice.

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