Switching between TNFi drugs for patients with axial spondyloarthritis

Introduction

Axial spondyloarthritis (axSpA) is a chronic progressive inflammatory disease involving the joints in the neck, back, hip and pelvis. The onset of axSpA is usually before the age of 45 years. The disease may lead to back pain, reduced physical function, reduced mobility, and fatigue. If the patients are not treated, they may experience a reduced ability to work, limited social participation, and an overall lower quality of life.

New treatment options with Tumor Necrosis Factor inhibitor (TNFi) have contributed to major improvements in health and quality of life for patients with axSpA. Tumor necrosis factor is a protein in the body that causes inflammation. TNF inhibitors are drugs that help reduce inflammation and are used worldwide to treat inflammatory conditions such as axial spondyloarthritis. However, some patients experience adverse events or lack/loss of effect and stop the treatment they have started. There are multiple different TNFi drugs on the market and it is possible to switch between different kinds. In this study switches between biosimilar treatments are not investigated, the focus is on switches between different kinds of TNFi drugs.

About EuroSpA

This study is performed in the EuroSpA Research Collaboration Network. This is a scientific collaboration among rheumatologists and scientific staff from 17 European countries who share registry data to perform studies like this one. The collaboration allows for data of larger groups of patients to be collected. This heightens the quality of the study and provides greater certainty to the results than if the study were to be performed in a single country. The 17 countries are Netherlands, Czech Republic, Spain, Slovenia, United Kingdom, Denmark, Estonia, Italy, Iceland, Norway, Germany, Portugal, Finland, Romania, Switzerland, Sweden, and Turkey. 12 of these countries contributed data to this study.

What did the authors hope to find?

The primary aim of the study was to find out how effective the TNFI drugs are when patients switch to the second or third TNFI. The secondary aim was to find out if the reason for switching had impact on the subsequent effectiveness. Reasons for switching could be either if the patient experienced lack or loss of effect of the drug or if there were adverse events.

Who was studied?

Data from 8254 patients with axial spondyloarthritis was included. All patients were over the age of 18 and started treatment with a second/third TNFi drug in the study period.

How was the study conducted?

This study is a real-world study based on data from registries where we look at how the patients are doing in real populations. These type of studies helps assess how well medication works. This stands in contrast to clinical studies where the study population is very selected on for example age and absence of other diseases, thereby excluding many people from entering the study.

Data from the 12 countries were collected on a variety of different variables such as age, sex, blood test results, disease activity, smoking status, medication information. Calculations were made to find out how long the patient kept receiving the TNFI drug and how well they were doing.

Main results

- 71% of patient stayed on the same treatment for at least one year.
- This was the case for both those receiving the second kind and the third kind of TNFi.
- More patients achieved inactive disease (remission) after 6 months among those receiving the second TNFi (23%) compared to those receiving the third kind (16%).
- A larger part of those receiving the second TNFi were doing very well if the reason for stopping the first TNFi were adverse events compared to lack/loss of effect.

What do the authors plan to do with this information?

The results of the study have been published in an international scientific journal and presented at congresses for other health care professionals who work in this field. We plan to share the results through information like this. Additional research on the subject is planned.

What does this mean for me?

If you are diagnosed with axial spondyloarthritis and being treated with TNFi, these results might help you to better understand the possibilities and reasons the doctor might have for offering to switch to a different drug if you experience lack or loss of effect or adverse events. If you have any concerns about your disease or your treatment, you should talk to your doctor.

This is a plain language summary of the scientific publication from EuroSpA: "*Second and third TNF inhibitors in European patients with axial spondyloarthritis: effectiveness and impact of the reason for switching*" by Linde et. al. The original work was financially sponsored by Novartis. You can read the original article published in Rheumatology in 2023 here: https://doi.org/10.1093/rheumatology/kead494

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