

Lay Summary: Effectiveness and Safety of TNF Inhibitors in Adults with Juvenile Idiopathic Arthritis

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What was already known?

Many children who have juvenile idiopathic arthritis (JIA) continue to have disease as adults. TNF inhibitors (TNFi) have already been shown to be an effective treatment for children with JIA when started in childhood. However, little is known about their risks and benefits when used for JIA for the first time in adulthood. The aim of this analysis was to describe how adults with JIA starting a TNF inhibitor (TNFi) respond to treatment.

What was discovered?

In the British Society of Rheumatology Biologics Register, 443 adults with JIA from childhood (arthritis onset <16 years) starting their first TNFi were identified. Over one year of treatment, disease activity improved. In these patients, 58 had a serious infection, 4 had a cardiovascular event, 11 had eye problems known as uveitis and 16 patients had malignancies.

Compared with adult rheumatoid arthritis (RA) patients, disease improvement was similar. However, malignancy rates were lower, and uveitis rates much higher in the adults with JIA, and they also had a lower risk (half) of serious infection. This study shows that TNFi are an effective therapeutic option for adults with JIA, with a safety profile similar to that seen in RA.

Why is this important / what is the benefit to patients?

This is the largest study to describe disease activity and safety outcomes in adults with JIA receiving TNFi. Disease activity improved after one year of treatment, suggesting for adults with persistent or recurrent symptoms of JIA in adulthood, introducing a TNFi at this point can result in improvements.