Anti-TNF Drugs versus Long-Term Steroid Use for Patients with Inflammatory Bowel Diseases

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What was the research about?
Crohn's disease (CD) and ulcerative colitis (UC) are inflammatory bowel diseases that cause long-term diarrhea and stomach pain. CD and UC affect more than 1.5 million Americans. These illnesses can reduce quality of life and even lead to death.

CD and UC are usually treated with either steroids or anti-TNF drugs. Anti-TNF drugs block a specific part of the immune system. Both steroids and anti-TNF drugs have side effects. Little information exists about which treatment carries lower risks of death or serious side effects for patients with CD and UC.

The research team compared insurance claims from patients with CD and UC who took anti-TNF drugs or long-term steroids. The team wanted to learn about the risks and benefits of these treatments. The team then made a computer model to predict the impact of these treatments on quality of life for patients with CD.

What were the results?
For patients with CD, the risk of death was lower for those taking anti-TNF drugs than for those taking long-term steroids. Patients taking anti-TNF drugs also had fewer major heart problems and broken hips. But they had slightly more hospital visits for health problems related to CD. The computer model predicted that patients taking anti-TNF drugs would have a better quality of life than patients taking long-term steroids would.

For patients with UC, the study didn't find a difference between the two treatments in the risk of death, heart problems, or broken hips. Patients taking anti-TNF drugs had more emergency surgeries and hospital visits for health problems related to UC than patients taking long-term steroids did.

What did the research team do?
The research team looked at Medicare and Medicaid billing claims from 13,256 patients with CD and UC who were taking long-term steroids or anti-TNF drugs. The team looked at how likely it was for patients to die or have serious side effects.

The team also surveyed 812 patients with CD about their disease symptoms, length of time on treatment, and risk of side effects. The research team used patients' answers to predict patients' quality of life for each treatment.

What were the limits of the study?
The research team couldn't be sure the anti-TNF drugs caused the hospital visits and surgeries. For example, patients taking anti-TNF drugs may be sicker than patients taking long-term steroids. Also, doctors may have prescribed anti-TNF drugs as a last attempt to treat very sick patients with medicine before trying surgery.

The review of patients' medical claims and the survey included two different groups of patients. If the patients in these two groups were different, such as in...
their age or how sick they were, then it could affect the quality-of-life results.

Future research could keep looking at quality-of-life concerns for patients with UC and CD.

**How can people use the results?**
Patients with inflammatory bowel diseases and their doctors may use the results to discuss the benefits and risks of using anti-TNF drugs or long-term steroids. Anti-TNF drugs may be safer than long-term steroids, particularly for patients with CD. For patients with UC, anti-TNF drugs didn't show the same benefits as they did for patients with CD.

To learn more about this project, visit pcori.org/Lewis057.