

Fracture risk should be considered for people taking oral steroids and PPIs



There is an increased risk of osteoporotic fractures in people using both oral glucocorticoids and proton-pump inhibitors.

INTRODUCTION

Rheumatoid arthritis is a chronic inflammatory disease that can affect a person's joints, and may cause pain and disability. Rheumatoid arthritis affects people of all ages, and is more common in women than men. One of the complications of rheumatoid arthritis is an increased risk of osteoporotic fractures.

People with rheumatoid arthritis may be prescribed oral glucocorticoids (steroids), along with a medicine called a proton pump inhibitor (often shortened to PPI). PPIs are used to reduce acid in the stomach, which reduces stomach side effects of steroids and other anti-inflammatory drugs used to treat rheumatoid arthritis. There is some evidence that these medicines can increase the risk of osteoporotic fractures.

WHAT DID THE AUTHORS HOPE TO FIND?

The authors hoped to find out whether using oral steroids and PPIs together increases the risk of osteoporotic fractures in people with rheumatoid arthritis.

WHO WAS STUDIED?

This study looked at over 12,000 people with rheumatoid arthritis in the UK over a 20-year period. Everyone was over the age of 50.

HOW WAS THE STUDY CONDUCTED?

This was a retrospective observational study. This means the authors used an existing database of patient records. There was no interventional treatment given.

First, the authors extracted information about people who had been prescribed oral steroids and PPIs, and looked for six types of osteoporotic fractures: hip, vertebrae (spine), humerus (upper arm), forearm, pelvis, and ribs. They also collected information about other medicines and disease diagnoses. Using this data, the authors assessed whether using oral steroids and PPIs together increased the risk of osteoporotic fractures in people with rheumatoid arthritis. They also examined the use of steroids and PPIs separately, and the effect of different doses.

WHAT WERE THE MAIN FINDINGS OF THE STUDY?

The main finding was that people with rheumatoid arthritis had a 60% higher risk of fractures if they took oral steroids and PPIs together. This means the number of osteoporotic fractures would increase by almost 14 for every 1,000 people who took both drugs for 1 year in the UK. This higher risk with simultaneous use of oral steroids and PPIs was also seen for most individual fracture sites – those at the hip, spine, pelvis and ribs. There was no increased fracture risk found for the bones in the arm. There was no increasing fracture risk with higher daily doses or longer use of PPIs.

ARE THESE FINDINGS NEW?

Yes. To the author's knowledge, this is the first study to look at the risk of osteoporotic fractures with oral glucocorticoids and PPIs in people with rheumatoid arthritis.

WHAT ARE THE LIMITATIONS OF THE STUDY?

There are some limitations to this type of study. For example, there was not much information on some markers of disease severity of rheumatoid arthritis in the database. It is also not possible to tell from the database on whether people used the medicines they were prescribed. But in each case, the authors tried to overcome the limitation, for example by using other markers of disease severity such as use of painkillers.

WHAT DO THE AUTHORS PLAN ON DOING WITH THIS INFORMATION?

How PPIs affect bone health or the risk of falling over is not yet known, and some of these findings did not support the few mechanisms proposed. The authors encourage other researchers to study this subject. The group has done another study on people with rheumatoid arthritis in the same database, looking into the effect of low-dose oral steroid therapy on osteoporotic fracture risk. This is an interesting research question, and a knowledge gap that they hope to answer.

WHAT DOES THIS MEAN FOR ME?

If you have rheumatoid arthritis, you may be prescribed an oral steroid and a PPI. Taking these drugs might mean you may have an increased risk of osteoporotic fracture, especially as you get older, or if you have had rheumatoid arthritis for a long time. Your doctor might give you a fracture risk assessment, and you might be given an anti-osteoporotic treatment.

If you use over-the-counter antacid medicines for indigestion or heartburn, you should talk to your doctor about how these might affect your risk.

It is important that you do not stop taking any medicines you have been prescribed. If you have any concerns about your disease or its treatment, you should talk to your doctor.

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