Long term use of oral bisphosphonates may double risk of esophageal cancer

September 2 2010

People who take oral bisphosphonates for bone disease over five years may be doubling their risk of developing oesophageal cancer (cancer of the gullet), according to a new study published in the British Medical Journal today.

Oral bisphosphonates are a type of drug used to treat osteoporosis and other bone diseases and are the most commonly recommended treatment for such conditions.

Case reports suggest an association between use of oral bisphosphonates for osteoporosis and increased risk of oesophageal cancer. But the evidence is limited, and no adequately large study with information on potential confounding factors and long follow-up has been published.

So researchers from the University of Oxford's Cancer Epidemiology Unit and the Medicines and Healthcare products Regulatory Agency carried out a large-scale study to look into the possibility of an association.

They analysed data from the UK General Practice Research Database, which has anonymised patient records for around six million people registered with a NHS GP.

They focused on men and women aged over 40 years - 2,954 with oesophageal cancer, 2,018 with stomach cancer and 10,641 with colorectal (bowel) cancer diagnosed between 1995 and 2005. Each case
was compared with five controls matched for age, sex, general practice and observation period.

They found that people with 10 or more prescriptions, or with prescriptions over about five years, had nearly double the risk of oesophageal cancer compared with people with no bisphosphonate prescriptions.

There was no such increased risk for stomach or **bowel cancer**.

Typically, oesophageal cancer develops in one per 1000 people at age 60-79 over five years. Based on their findings, the authors estimate that with five years' use of oral bisphosphonates this would increase to two cases per 1000 people taking bisphosphonates over five years.

Although these results appear to contradict another recently published study using the same database, which reported no increased risk of oesophageal cancer with oral bisphosphonate use, today's report tracked patients for nearly twice as long, and also had greater statistical power.

The study's lead author, Dr Jane Green, says: "Oesophageal cancer is uncommon. The increased risks we found were in people who used oral bisphosphonates for about five years, and even if our results are confirmed, few people taking bisphosphonates are likely to develop oesophageal cancer as a result of taking these drugs. Our findings are part of a wider picture. Bisphosphonates are being increasingly prescribed to prevent fractures, and what is lacking is reliable information on the benefits and risks of their use in the long term."

In an accompanying editorial, Dr Diane Wysowski, an epidemiologist at the US Food and Drug Administration, discusses the differences between the two studies. She says that "the possibility of adverse effects on the oesophagus should prompt doctors who prescribe these drugs to
consider risks versus benefits." She also suggests doctors "tell patients to report difficulty in swallowing and throat, chest, or digestive discomfort so that they can be promptly evaluated and possibly advised to discontinue the drug."

Provided by British Medical Journal


This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.