

Risk of oesophageal adenocarcinoma after antireflux surgery in patients with gastro-oesophageal reflux disease in the Nordic countries

Oesophageal adenocarcinoma is an increasingly common cancer with late presenting symptoms, poor prognosis, and demanding treatment. The main risk factor is gastro-oesophageal reflux disease, which is caused by reflux of acidic stomach contents into the oesophagus. Gastro-oesophageal reflux affects approximately 10-20% of the adult population in the western world and the main symptoms are heartburn and regurgitation. Reflux can be treated either using medical treatment or through surgery. Medication reduces the acidity in the stomach, while surgery creates a mechanical barrier that prevents reflux. Previous studies have not been able to prove if effective treatment against gastro-oesophageal reflux disease reduces the risk of developing oesophageal adenocarcinoma, but have not had the statistical power to assess long-term effects.

This all-Nordic cohort study was conducted to determine if the risk of oesophageal adenocarcinoma decreased following antireflux surgery and medical treatment against reflux. All adult patients in Denmark, Finland, Iceland, Norway and Sweden with a diagnosis of reflux were identified in the patient registries, and additional data were collected from the cancer registries, cause of death registries, and the Swedish Registry of the Total Population. The incidence of oesophageal adenocarcinoma in patients who underwent surgery and those using medical treatment was compared to the incidence in the general background population.

The study included 942,906 patients with gastro-oesophageal reflux disease, and among these 48,414 underwent antireflux surgery. Among the patients who underwent surgery, 177 (0.4%) developed oesophageal adenocarcinoma, and the corresponding figure among the patients who received medical treatment was 2,368 (0.3%). The risk of oesophageal adenocarcinoma decreased both among the patients who underwent surgery and those receiving medical treatment, and after at least 15 years of follow-up the risk was similar to that of the background population.

In summary, this population-based cohort study found that the risk of oesophageal adenocarcinoma decreased over time after both surgical and medical treatment against gastro-oesophageal reflux disease, and was similar to that of the general background population after 15 years of follow-up.

Publication

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