Low-value care and endoscopy in dyspepsia: A retrospective observational study from a metropolitan Australian hospital

Authors: Lei Lin,[A] Myat Myat Khaing,[A] Vinny Ea,[B] Petrina Kellar,[A] Felicity Hartnell,[A] John Croese,[A] Ruth Hodgson,[A] Thomas James,[A] Robert Franz,[A] Andrew Hughes,[A] Harish Iswariah,[A] Ian Shaw,[A] Ann Vandeleur[A] and Tony Rahman[A]

Introduction

Recent literature suggests that young patients aged <55 years without any alarm features are at low risk of having significant endoscopic findings (SEF) including malignancy, ulceration and erosive oesophagitis. Guidelines recommend that this patient subgroup should undergo a trial of proton pump inhibitors (PPIs) and potentially *Helicobacter pylori* testing before being considered for endoscopy. Hence, endoscopy has been identified as a potential source of unnecessary expense and low-value care for health services.

We sought to assess the yield of performing endoscopy in young patients aged <55 years with dyspepsia referred by primary care physicians; and to assess the utility of alarm symptoms, and of nonresponse to PPIs for predicting significant endoscopic findings.

Methods

We retrospectively reviewed all endoscopies at our tertiary centre between January 2018 and July 2019 for investigation of dyspepsia. We excluded patients aged <18 years or ≥55 years, endoscopies performed for surveillance reasons and endoscopies performed for non-dyspepsia related indications.

Results

Three-hundred and two endoscopy exams met inclusion criteria, with a mean patient age of 41.0±9.5 years and 43% were male. 246 (81.5%) endoscopies were performed in accordance with the guideline indications, consisting of 80 (26.5%) patients with alarm features, with 226 (74.8%) patients having had a trial of PPIs prior to referral.

The most common alarm features were iron deficiency anaemia and dysphagia, but also included unintentional weight loss, persistent vomiting, upper gastrointestinal bleeding, family history of upper gastrointestinal malignancy and abnormal imaging of the of upper gastrointestinal tract.

On endoscopy, 151 (50.0%) patients had a normal examination while 24 (7.9%) patients had a significant endoscopic finding including one case of gastric adenocarcinoma, three cases of ulceration, two cases of Barrett's oesophagus and 19 cases of erosive oesophagitis (Los Angeles grade B or higher).

The rate of SEF in patients with alarm features was 4/80 (5.0%) compared with 20/222 (9.0%) in patients without alarm features, with an odds ratio of 0.53 (0.18–1.61; p=0.263).

The rate of SEF in patients who had endoscopy performed within guidelines was 21/246 (8.5%) compared with 3/56 (5.4%) done outside of guidelines, with odds ratio of 1.65 (0.47–5.73; p=0.432).

Conclusions

We identified that 18.5% of endoscopies for investigation of dyspepsia in patients aged 18 to 54 years were performed outside of guidelines as they did not have any preceding alarm features nor a trial of PPI beforehand. However, this subgroup of patients had a clinically significant SEF rate of 5.4%, hence they do not clearly represent low value care episodes. A negative endoscopy itself has direct clinical utility as it relieves patient anxiety from the fear of having an underlying cancer or serious disorder and facilitates a diagnosis of functional dyspepsia so that more targeted management can be provided for these patients. A substantial number of patients did not have a PPI trial prior to referral, suggesting that many primary care physicians are unaware of the dyspepsia guidelines, which can be addressed with focused education and clear referral guidelines. ■

Conflicts of interest

None declared.

Authors: [A]The Prince Charles Hospital, Brisbane, Australia; [B]University of Queensland, Brisbane, Australia

© Royal College of Physicians 2020. All rights reserved.