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Upper gastrointestinal cancer misses: could we do better?

Introduction

In the UK approximately 8,500 cases of upper gastrointestinal (GI) cancers are diagnosed annually. Many studies have indicated that survival is related closely to time and stage of diagnosis. This has prompted a move by the UK Department of Health towards encouraging innovations that promote early diagnosis such as the Be Clear on Cancer campaign.[1–3] Endoscopy remains the gold-standard investigation for the diagnosis of gastro–oesophageal cancer. Unlike colonoscopy, where there are standardised key performance indicators and audits of all colonoscopists' practice, no parallel standards are currently in use in upper GI endoscopy.

The incidence of oesophageal malignancy is increasing and survival is poor. Upper GI cancer miss rates are reported to be approximately 5–13%.[1,4] It is accepted that a cancer detected within three years following an endoscopy is considered to be a 'potential miss' and if detected within one year after an endoscopy is likely to be a 'definite miss'.[4,5] In view of public health campaigns to detect cancer at an earlier stage we sought to review missed cancers in our trust over a four-year period.

Method

We conducted a retrospective, case study of patients diagnosed with oesophageal and gastric cancers between January 2011 and January 2015. Data were extracted from the cancer registry at Barnet and Chase Farm Hospital, a two-site district hospital that serves a population of approximately 500,000 patients. Information regarding any gastroscopies done within 3–36 months of cancer diagnosis was obtained for each patient using our electronic endoscopy reporting tool.

Results

In total there were 305 new cases (male, 207 (68%); mean age, 73.8 years; range, 26–100 years) of upper GI cancer, of whom 23 (7.5%) had undergone a gastroscopy within 3–36 months of the diagnosis. Only 2 patients had undergone an endoscopy procedure in the 3–12 months prior to diagnosis. Alarm symptoms were present in 11 patients (48%; information available in 20 patients) at the time of the index 'miss' endoscopy.

Oesophago–gastric cancers appear to have been missed at endoscopy in 7.5% of patients in our unit. This value parallels outcomes reported elsewhere.[4,5]

Discussion

Given the poor prognosis associated with upper GI malignancy, this study reminds us to be vigilant when examining the mucosa, particularly at the cardia, which is most vulnerable with regard to missing a cancer. The endoscopist and referring clinician should also have a low threshold for suspicion in patients presenting with alarm symptoms. Although there are many established performance indicators for colonoscopy, endoscopists are less familiar with gastroscopy measures of quality, which are currently being addressed by the British Society of Gastroenterologists. We believe that addressing gastroscopy technique will have an impact on early detection of upper GI cancers and improve outcomes for these patients. An audit such as this also serves as a reminder to referring clinicians that alarm symptoms may warrant further evaluation even if the endoscopy is reported as normal. ■

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Venous thromboembolism: a role for weight-stratified thromboprophylaxis?

Venous thromboembolism (VTE) encompasses a range of presentations from asymptomatic deep vein thrombosis to fatal pulmonary emboli. These common clinical problems are associated with significant morbidity, mortality and resource expenditure.[1] Routine use of thromboprophylaxis, when administered to appropriately assessed patients, reduces adverse patient outcomes and decreases overall healthcare costs, with

a desirable benefit-to-risk ratio.[1,2] In the UK, fixed doses of low molecular weight heparin (LMWH) are used for VTE prophylaxis regardless of patient weight.[3] While the effects of LMWHs are not usually routinely monitored, levels of anti-Xa have been used to determine if standard prophylactic doses of LMWH provide adequate prophylactic cover to obese patients. An inverse correlation between anti-Xa levels in the first 10 hours and body weight with fixed prophylactic doses of 40 mg enoxaparin has been demonstrated, which suggests that current fixed-dose thromboprophylaxis is likely inadequate in heavier patients.[3,4]

A review of observational studies suggests that with fixed dose thromboprophylaxis, VTE rates in the obese are twice that of the non-obese, with a subgroup analysis of the PREVENT trial demonstrating no benefit of standard-dose dalteparin over placebo in the morbidly obese population.[3]

Randomised control trials involving bariatric surgery groups have demonstrated lower rates of VTE with higher doses of LMWH, with no associated increase in bleeding events. Severely and morbidly obese patients have been consistently under-represented in larger studies of thromboprophylaxis thus far, making it challenging to apply fixed-dose thromboprophylaxis to this growing segment of the population with any confidence.[3,5] Furthermore, studies have shown that obese patients have increased renal clearance compared to the non-obese, and LMWHs are renally excreted.[3,4]

Royal Bournemouth Hospital and Poole Hospital had two serious untoward incidents in which patients died due to pulmonary emboli. The patients had both been on standard VTE prophylaxis as per the trust guidelines. This led to a review of practice, which produced a revised weight-based prophylactic dosing regimen (Table 1).

The new guidelines were introduced early in 2015. We audited all new medical admissions over a 48-hour period in February 2015, supplemented by a questionnaire sent to all junior doctors regarding their knowledge of the changes. Out of 74 patients, 64 had completed VTE assessments (86.5%). Out of 59 patients assessed as requiring VTE prophylaxis, 49 were prescribed either mechanical prophylaxis, LMWH, unfractionated heparin or oral anticoagulants (83.05%). Of the 33 patients prescribed dalteparin, the LMWH used in the trust, only 24 were dosed appropriately for their weight as per the revised hospital guidelines (72.72%).

The survey was sent to 60 junior doctors, 17 responded to the survey. Only 65% of these were aware that there had been a change in guidelines, with only 29% of these aware of the correct dosing for 100–150 kg and only 18% aware of the correct dosing for >150 kg.

These data show that thorough and wide-reaching education is needed when essential guidelines are changed. Weight-based thromboprophylaxis should be considered by all trusts in view of the current evidence, and further work should be undertaken if more robust evidence is needed for this to be nationally recognised. ■

Table 1. Weight-based thromboprophylaxis dosage.

Drug	Weight, kg			
	<50	50–99	100–150	>150
Dalteparin, IU	2,500 od	5,000 od	5,000 bd	7,500 bd

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The limited role of cranial computerised tomography in the assessment of a medical patient

Introduction

Computerised tomography (CT) examinations are often used in the initial assessment of medical patients. Cranial CT scans are probably the most common CT examination performed in developed nations.[1] Although there are good indications for cranial CT in the context of trauma, the indications among non-trauma patients referred for medical assessment are not so clear.[2] In developed nations, many hospitals now have ready access to magnetic resonance scanners and magnetic resonance imaging (MRI) of the brain has a number of advantages over cranial CT in the assessment of medical patients.[3] We recently audited the use of cranial CT in the assessment of patients referred to the medical assessment unit (MAU) in our hospital.

Methods

All patients referred to the MAU over a three-month period who underwent cranial CT scans were examined. Some of these patients also went on to have MRI of the brain. 192 patients were identified and the age ranged between 17 and 96 years old.

Results

The common indications for cranial CT were altered mental state (n=52; 27%), headache (n=36; 19%) and dizziness (n=35; 18%). The key finding was that the cranial CT revealed an abnormality related to the patient's presenting symptoms in only 10 (5%) patients. Cerebral infarction was detected in