

oesophageal adenocarcinoma, which is increasing in incidence in developed countries¹. Risk factors for BO are age, being white Caucasian and male gender². To our knowledge, no differences have previously been found between the mean length of Barrett's segment or the mean age of BO patients in differing ethnic groups

Methods We performed a retrospective analysis of electronic patient records at St George's Hospital, which serves a large ethnically diverse population. Patients with a diagnosis of BO were identified from gastroscopy records dating from 2009 to 2012. Demographic information was collected for every patient. Patients of Indian sub-continent Asian (ISA) origin were identified using surname as previously described³. We looked at length of Barrett's, gender and age in ISAs, compared to other ethnic groups

Results 499 procedures were identified where the diagnosis was BO. Multiple reports for individual patients were excluded, identifying 378 patients with an endoscopic diagnosis of BO. Mean age of the sample was 67 years (SD 14.4). 11% of the sample were of ISA origin, 89% were of non-ISA origin. No significant difference was found in the mean length of the Barrett's segment between males and females. However, male patients with BO were younger than females (65.5 years vs. 70.2 years; $p = 0.003$). No significant difference was found in the mean Barrett's length or mean age between ISAs and non-ISAs. Patients of ISA origin were not found to have any significant difference between mean length of Barrett's segment or mean age. Patients of non-ISA origin had no significant difference in mean Barrett's length between males and females, but there was a statistically significant difference between mean age of male Barrett's patients (65.1 y) and female Barrett's patients (70.7 y; $p = 0.01$) in this group

Conclusion In our ethnically diverse population, male patients with Barrett's oesophagus are younger than female patients. Furthermore, this difference occurs only in patients of non-Indian sub-continent origin. This implies that there may be an environmental factor in the UK which confers an accelerated progression of Barrett's oesophagus in male patients. Further study in this area is warranted

Disclosure of Interest None Declared.

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PTU-168 'TOMATOES WEARING SUNGLASSES' ARE HARD TO SWALLOW – AN ANALYSIS OF THE PREVALENCE, PRESENTING FEATURES & INVESTIGATION FINDINGS IN PATIENTS WITH EOSINOPHILIC OESOPHAGITIS AT A DISTRICT GENERAL HOSPITAL

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Introduction Eosinophilic Oesophagitis (EoE) is a recently described disorder of unclear aetiology and prevalence. Most published studies emanate from international and tertiary referral centres, with a greater focus on the paediatric population, where the disease is better described. We present one of the largest case series of adult patients with EoE managed in a typical UK district general hospital. We describe the patient demographics, presenting features and investigation findings.

Methods We performed a retrospective analysis of clinical records at the East and North Hertfordshire NHS trust from January 2009

to December 2012 to identify patients with EoE. The diagnosis of EoE was confirmed by symptoms, the presence of more than 15 eosinophils (likened by pathologists to “tomatoes wearing sunglasses”) per HPF on oesophageal biopsy, and the absence of an alternative diagnosis. Data fields collected included gender, history of atopy, presenting symptoms, endoscopic findings, peripheral eosinophil count, and serum allergy testing.

Results We identified 45 patients with EoE in this 3 year period. With an estimated catchment population of 545,820, the prevalence of EoE in our local population is about 0.8 per 10,000 people. 33 patients were male and 12 were female, giving an approximate male:female ratio of 3:1. The average cohort age was 52 years. Presenting symptoms were dysphagia in 82% ($n = 37$), food bolus obstruction in 36% ($n = 16$), reflux in 24% ($n = 11$) and abdominal pain in 9% ($n = 4$). The time to diagnosis ranged from 0 to 15 years.

On endoscopy, 71% ($n = 32$) had typical features of EoE. The remaining 29% had a normal gastroscopy. We estimate that EoE is responsible for about 2% of all gastroscopies performed for dysphagia at our trust.

32 patients were questioned about a history of atopy; 81% ($n = 26$) had a confirmed history. Of the 41 patients who had a full blood count cheque, 15% ($n = 6$) had a peripheral eosinophilia. Total IgE levels were checked in 17 patients; 16 (94%) had elevated levels. Food allergy testing for cod, wheat, egg, soya, milk and nuts was performed in 15 patients. 9 of these patients (60%) had a positive test, the most common allergens being wheat ($n = 7$) and egg ($n = 5$).

Conclusion EoE is a common diagnosis in patients presenting with dysphagia. This case series highlights the importance of obtaining oesophageal biopsies when endoscopic appearances are normal. Given the prevalence of EoE, and the variation in assessment even within one trust, national guidelines are required to standardise diagnostic and management pathways for patients with EoE.

Disclosure of Interest None Declared.

PTU-169 THE TWO WEEK WAIT – IS IT ANY GOOD AT DIAGNOSING OESOPHO-GASTRIC CANCERS?

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Introduction The two week wait (2WW) for suspected upper gastrointestinal cancer was introduced by the Department of Health in 2000 to identify those at risk of malignancy and to fast track their investigation and management. Twelve years on, we aimed to assess the value of this mode of referral and whether this alters outcomes for those diagnosed through this pathway.

Methods All patients diagnosed with oesophogastic cancer between April 2011 and March 2012 at the QEII and Lister hospitals, were retrospectively reviewed using our MDT database. These cases were analysed with respect to mode of referral, TNM stage of disease at diagnosis and subsequent management. We reviewed all upper gastro-intestinal 2WW referrals for gastroscopy in the same time period, to determine the proportion which represents malignancy in whom malignancy was found.

Results During this twelve month period 87 gastro-oesophageal cancers were diagnosed, 75% were oesophageal compared to 25% gastric in origin. There was a male preponderance, accounting for 61% of cases, the average age at diagnosis being 71 years old.

56% were diagnosed via the 2WW, whilst the remainder presented as routine referrals (19%), emergency admissions (22%) and referrals from other specialities (3%). Tumour staging (TNM) at the time of diagnosis was comparable between the routine and 2WW referrals as was the proportion of those who had advanced disease at diagnosis (T4 and above) accounting for 47% and 52% of cases respectively.

When reviewing all 2WW referrals for gastroscopy the cancers pick up was 10% with the majority of examinations being normal or identifying insignificant findings.

Conclusion The two week wait referral system is often considered to be a poor method for detecting oesophagogastric cancer. In our data 10% patients referred in this manner had oesophagogastric cancer which is consistent with existing data. However when looking at all cases of cancer diagnosed in this time period the 2WW represents the pathway for diagnosis for over half our malignancies (56%). Our cohort of patients showed similar TNM staging at the time of diagnosis irrespective of whether they were referred routinely or on an urgent basis.

This suggests that the 2ww is an important pathway for referral of upper gastrointestinal malignancies but unfortunately does not identify patients at earlier stage. This is probably due to the lack of symptoms in early oesophagogastric cancer and strengthens the argument for identifying patients at an earlier stage perhaps by screening or surveillance of high risk groups.

Disclosure of Interest None Declared

PTU-170 OESOPHAGEAL PERFORATION RESULTING FROM BAND ACHALASIA – A DELAYED COMPLICATION OF LAPAROSCOPIC ADJUSTABLE GASTRIC BANDING

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Introduction Laparoscopic adjustable gastric banding (LAGB) is a common bariatric procedure in the UK due to its relative technical ease and reversibility. The technique has been around since the 1990s and although its immediate complications have been evident and known, the longer term complications are still emerging and not yet completely understood. Oesophageal dysmotility post-LAGB is now increasingly being recognised as a long-term complication associated with LAGB. This paper presents a potentially life-threatening complication associated with oesophageal dysmotility more than a decade after LAGB placement.

Methods A 58yr old lady presented with chronic cough and mediastinal widening on chest X-ray. A computed tomogram (CT) revealed a mega-oesophagus with a collection in the mediastinum in keeping with a contained oesophageal perforation and a LAGB in situ. On further questioning, she mentioned that she had had a LAGB placed 12yrs previously. She had been experiencing recurrent coughs, chest infections, weight loss and dysphagia for 2 yrs but had not sought medical help.

Results The LAGB was completely emptied (9mls of fluid). She was managed conservatively with nil orally, nasogastric drainage, antibiotics, parenteral nutrition over a period of 4 weeks and serial imaging was performed to monitor progress. She responded well to it, the perforation had completely healed, she resumed oral intake and was discharged.

Conclusion While oesophageal dysmotility is emerging as a long-term complication occurring around 5–7 yrs post-LAGB, its association with oesophageal perforation has not been described in the literature prior to this incident. It is likely that oesophageal dysmotility resulted in mega-oesophagus and the associated reflux caused frequent coughing in our patient. The valsalva manoeuvre during coughing which closes the cricopharyngeus proximally and the presence of LAGB distally may have generated a high pressure zone within the oesophagus leading to perforation. This was a potentially life-threatening complication. This re-inforces the importance of life-long commitment to follow-up in patients who undergo bariatric surgery. We suggest at-risk patients developing mega-oesophagus should be identified and timely band-emptying performed to avoid this serious complication. Further long-term cohort studies need to be performed to

determine the exact prevalence of oesophageal dysmotility and such complications.

Disclosure of Interest None Declared.

PTU-171 BURIED BARRETT'S DYSPLASIA ('BBAD') STUDY: RESULTS FROM A LONG TERM FOLLOW UP STUDY OF BARRETT'S NEOPLASIA COHORT

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Introduction Buried Barrett's or Subsquamous intestinal metaplasia (SSIM) refers to glands which are 'buried' underneath the squamous epithelium. High dose acid suppressive therapy and lack of acid exposure can result in squamous re-epithelialisation over the Barrett's mucosa. Buried Barrett's can pose significant diagnostic and surveillance challenges. Data on the prevalence of Buried Barrett's in endoscopic therapy naïve patients is limited. Like wise there is limited data on the prevalence of Buried Barrett's in patients following EMR. We aim to study and compare the prevalence of Buried Barrett's in these two groups of patients.

Methods

Inclusion Criteria:

- Patients with Barrett's referred for endoscopic treatment between June 06 and June 12
- Patients with Barrett's dysplasia following EMR procedure.

Biopsy:

- Biopsies were first obtained from any suspicious looking area. Following this, biopsies were then obtained from the neosquamous area. Finally, random biopsies were obtained. These were sent in separate cassettes. Histopathology was reported by two independent GI pathologists and was prospectively recorded on a central pathology database.

- Buried Barrett's was defined as any metaplastic or glandular tissue beneath the squamous epithelium. Pathology specimens were reported by 2 independent, accredited GI pathologists.

Results

Abstract PTU-171 Table 1 Buried Barrett's with and without dysplasia

	Buried Barrett's in endoscopic therapy naïve patients	Buried Barrett's in patients post EMR procedure
Total	16/83 (19%)	22/83 (26.5%)
Buried Barrett's with no dysplasia	2/83 (2.4%)	9/83 (10.8%)
Buried Barrett's dysplasia	14/83 (16.8%)	13/83 (15.6%)
HGD	9/83 (10.8%)	4/83 (4.8%)
IMC	3/83 (3.6%)	4/83 (4.8%)
HGD + IMC	12/83 (14.5%)	8/83 (9.6%)
LGD	2/83 (1.2%)	5/83 (6%)

Conclusion

Our study shows that in the pre-EMR cohort, there was an overall prevalence of 15.7% of buried Barrett's and a 14.5% prevalence of buried Barrett's with high grade neoplasia (HGD or IMC).

Our results in the post EMR cohort shows an overall prevalence of 33.7% of buried Barrett's with 9.6% prevalence of buried high grade neoplasia (HGD or IMC) suggesting that a third of patients undergoing EMR for Barrett's dysplasia harbour buried Barrett's and a third of these patients harbour high grade neoplasia. This has significant implications for post EMR endoscopic assessment and surveillance.

The results from our study shows that there is a need to develop and maintain proficiency in sampling techniques in patients with Barrett's oesophagus. It also shows that the biopsies particularly from those with dysplasia should be carefully reviewed by



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