INDICATIONS FOR UPPER GASTROINTESTINAL ENDOSCOPY IN MAIDUGURI, NORTH-EASTERN NIGERIA

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ABSTRACT

Background: Upper gastrointestinal endoscopy is one of the most commonly performed endoscopic procedures and provides valuable information in patients with gastroduodenal disorders. It is performed primarily to detect and/or correct a problem in the upper gastrointestinal tract.

Objective: To determine the common indications for upper gastrointestinal endoscopy at the University of Maiduguri Teaching Hospital.

Methods: This was a retrospective study in which records of 650 patients who underwent upper gastrointestinal endoscopy from 2002 to 2008 were reviewed. The endoscopies were performed using Pentax FG-29W forwardviewing oesophagogastroduodenoscope.

Results: Three hundred and twenty six (50.2%) of those endoscoped were males while 324 (49.8%) were females. Their ages ranged from 14 to 90 years with a mean of 39.2±14.2 years. The most common indication for endoscopy was dyspepsia accounting for 79.4% of cases. Other indications included upper gastrointestinal bleeding (10.0%), suspicion of malignancy (4.0%), persistent vomiting (3.4%), gastric outlet obstruction (1.8%), dysphagia (0.9%) and anaemia (0.5%). Soreness of the throat (5.7%) was the only complication observed.

Conclusion: The indications for upper gastrointestinal endoscopy in Maiduguri are similar to those in other centres in Nigeria and elsewhere, with dyspepsia being the commonest indication.

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INTRODUCTION

Upper gastrointestinal endoscopy (UGE) is a procedure that uses a lighted flexible fibre optic or video endoscope to visualize the oesophagus, stomach and duodenum[1]. It is one of the most commonly performed endoscopic procedures, and provides valuable information in patients with upper gastrointestinal (UGI) disorder. It is performed primarily to identify and /or correct a problem in the upper gastrointestinal tract. The general indications for UGE include upper gastrointestinal symptoms that persist despite empiric therapy; dyspeptic symptoms associated with other symptoms or signs suggesting serious organic disease (e.g. anorexia or weight loss) or in patients above 45 years of age in whom malignancy is a suspicion; dysphagia or odynophagia; persistent or recurrent oesophageal reflux symptoms; persistent vomiting of unknown cause; suspected neoplastic conditions; gastro-duodenal ulcer and gastrointestinal bleeding among others[2].

The procedure is usually performed on an outpatient basis after the patient has fasted for at least 8 hours. The throat is often anaesthesised with a topical anaesthetic spray. Intravenous sedation with diazepam or midazolam is usually given to relax the patient, induce short term amnesia and suppress the gag reflex. In some individuals who can relax and whose gag reflex can be controlled, the examination can be done without sedation.

Although temporary mild throat irritation sometimes occurs after the procedure, serious complications such as bleeding and perforation are very uncommon, occurring in about 1 in 800 cases for diagnostic oesophagogastroduodenoscopy[1].

UGE has been widely available in Nigeria as a diagnostic tool for common upper gastrointestinal disorders for over three decades now, and studies from various centres have shown that dyspepsia is the commonest indication for the procedure[3-6]. Reports from Ghana[7] and Pakistan[8] have similarly shown dyspepsia to be among the commonest indications for UGE.

This study was aimed at determining the common indications for UGE at the University of Maiduguri Teaching Hospital.

MATERIALS AND METHODS

The endoscopy records of patients who underwent UGE over a 6 year period (June 2002 to May 2008) were retrospectively reviewed. The biodata of the patients and the indications for

endoscopy were noted.

Upper gastrointestinal endoscopy was performed using a Pentax FG-29W forward viewing oesophagogastroduodenoscope and Pentax LH-150 PC light source. All the patients received 20mg of hyoscine bromide intravenously before the procedure. They also had 10% xylocaine pharyngeal spray and sedation with 10mg of intravenous diazepam. However, diazepam was avoided in patients with decompensated liver disease. Patients were observed for about an hour after the procedure before they were discharged.

RESULT

A total of 650 patients were endoscoped during the study period. Three hundred and twenty six (50.2%) were males while 324 (49.8%) were females giving a male to female ratio of 1.01:1. Their ages ranged from 14 to 90 years, with a mean of 39.2 ± 14.2 years, the age group with the highest frequency being 30-39 years (Table 1).

Table 2 shows the various indications for UGE. The most common indication was dyspepsia, which accounted for 516 (79.4%) of cases, followed by UGI bleeding (10.0%) and suspicion of malignancy (4.0%). Other indications included persistent vomiting (3.4%), gastric outlet obstruction (1.8%), dysphagia (0.9%) and anaemia (0.5%).

Soreness of the throat, reported by 37 (5.7%) of the patients, was the only complication observed. No death was recorded from the procedure over the study period.

Table 1: Age distribution of patients who underwent endoscopy at UMTH

Age group (years)	Frequency	Percentage (%)
10-19	42	6.5
20-29	144	22.2
30-39	152	23.4
40-49	150	23.1
50-59	98	15.1
60-69	48	7.4
= 70	16	2.5
Total	**650**	**100**

Table 2: Indications for upper gastrointestinal tract endoscopy at UMTH

Indication	Frequency	Percentage (%)
Dyspepsia	516	79.4
Upper GI bleeding	65	10.0
Suspicion of malignancy	26	4.0
Persistent vomiting	22	3.4
Gastric outlet obstruction	12	1.8
Dysphagia	6	0.9
Anaemia	3	0.5
Total	**650**	**100**

DISCUSSION

This study showed that dyspepsia is by far the commonest indication for UGE. Dyspepsia is a common presenting complaint in clinical practice. It is a nebulous term that refers to upper abdominal or retro-sternal pain, discomfort, heart burn, nausea, vomiting or symptoms considered to originate from the proximal gastrointestinal tract. The causes are varied ranging from gastroduodenitis, oesophagitis and cholelithiasis to peptic ulcer disease.

The finding of dyspepsia as the commonest indication for UGE is in keeping with findings from other studies in Nigeria and elsewhere[3-8]. Although dyspepsia is the commonest indication for UGE, the need for endoscopy is most difficult to judge in patients presenting with dyspepsia. For an endoscopy service to be effective, it is essential that it is not overburdened with inappropriately referred patients. But, at the same time, it is essential not to miss serious gastroduodenal pathology, particularly gastric cancer in patients presenting with dyspepsia. In order to overcome this dilemma, guidelines have been developed on the appropriate indications for endoscopy in patients with dyspepsia[9]. These indications include any patient over the age of 45 with recent onset of dyspeptic symptoms or change in dyspeptic symptoms; patients under the age of 45 years with dyspepsia who are positive for *Helicobacter pylori* on non-invasive testing or who have other risk factors such as treatment with non-steroidal anti-inflammatory drugs; patients under the age of 45 with severe and persistent symptoms that do not respond to treatment.

As in several other studies[3, 4, 6, 7, 8], UGI bleeding is the second commonest indication for oesophagogastroduodenoscopy. It is the investigation of choice, as it can detect the site of bleeding in the majority of patients, particularly if performed within 24 hours of the bleeding[10]. In addition to identifying the source of bleeding, procedures such as sclerotherapy, band ligation and application of heater probes can be deployed to arrest bleeding. Although other indications such as specific evaluation for oesophageal or gastric cancer, gastric outlet obstruction and persistent unexplained vomiting are less common, patients with such presentations need to be particularly thoroughly evaluated because of the high probability of finding a pathologic lesion.

The mean age of the patients who were endoscoped was 39.2 years. This is lower than the mean age of 48.1 years found by Olokoba[6] in Ilorin, but higher than the mean age of 32.0 years found by Malu *et al*[4] in Zaria. It is however similar to the 39.3 years found by Samaila *et al*[11] in Katsina. The almost equal (1.1:1) male to female ratio in this study differs from those of Malu et al and Danbauchi et al who found male to female ratio of 3:1 and 1.5:1 respectively. It also differs from the findings of Olokoba[6] who found a slight female preponderance of 1.14:1. These differences might be as a result of differences in sample size and demographic characteristics of the populations studied.

Our finding of sore throat in 5.7% of

the patients as the only complication and the fact that no mortality was recorded is consistent with reports of diagnostic oesophagogastroduodenoscopy being a safe procedure in competent hands.

In conclusion, the indications for UGE in Maiduguri are similar to those of other centres in Nigeria and elsewhere, with dyspepsia being the commonest indication.

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