Original Article

Open Access Esophagogastroduodenoscopy

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Summary:

Background: Open access gastroduodenoscopy allows general practitioners to request gastroduodenoscopy without prior referral to a specialist. Endoscopy of the upper gastrointestinal tract in experienced hands has definite advantages over conventional barium-meal examination.

Patients and Methods: A total of 266 patients who were referred directly from general practitioner or a specialist attending for esophagogastroduodenoscopy (EGD) to the Endoscopy Unit At Al-Kindi Teaching Hospital from September- 2008 to Feb-2010 as an open access policy. Six inclusion criteria were used to include patients in our study group , while 136 patients had underwent EGD were referred from outpatient clinics of the hospital by specialist after screening and filtration were included in the study. Data were obtained from patients include chief complaint and duration and full history of present illness with special emphasis on age, gender, symptoms (abdominal pain, vomiting, loss of weight or appetite, hematemesis, melena, dysphagia), and history of present medications. EGD was done for all patients with gastroscope Pentax EG-2985K2.8.

Results: Two hundred sixty six patients were included in the study and underwent EGD . One hundred thirty EGDs were done in this study as an open access EGD policy while 136 EGD were done for patients who were referred from outpatient clinics of the hospital. In open access EGD policy, 66.15% of patients were males and 33.85% patients were females. The most commonly affected age group which showed abnormal endoscopic findings were in the second decade of life (20-29 years) 22.31% of cases; the chief complaint was epigastric pain in 87.69% of patients. Normal EGD was found in 23.07% of patients while pathological lesions were seen in 76.93% of patients.

Gastro esophageal reflux disease (GERD) was the most common condition encountered by EGD (33.08%). While 136 patients referred from outpatient clinics of the hospital underwent EGD, 68.38% of patients were males and 31.62% of patients were females, most of the patients were in the third decade of life (28.67%), normal EGD was found in 44.12% of patients. Chronic active DU and GERD were the most common diagnoses 12.5%, 11.76% respectively.

Conclusions: The clinical assessment and the strict application of the six inclusion criteria in open access EGD policy increase the yield of diagnosis of pathological lesions and decrease the number of unnecessary EGDs in our study.

Key words: Gasteroscopy, gastritis, endoscope.

Introduction:

Endoscopy of the upper gastrointestinal tract in experienced hands has definite advantages over conventional barium-meal examination (1). It is more accurate diagnostic tool as lesions can be directly inspected and biopsy specimens could be taken.

The demand for EGD continues to grow, provoking calls for endoscopy services to be targeted at selected groups of patients (2). Providing general practitioners with free or open access to upper gastrointestinal endoscopy services offer patients the opportunity of rapid diagnosis and treatment, it also reduces the burden on hospital outpatient departments (3). Many endoscopy units, however, permitting such access, fear of massive increase in workload and an unacceptable increase in the number of "unnecessary" examinations. Open access gastroduodenoscopy allows general practitioners to request EGD without prior referral to a specialist. The patient's management remains the responsibility of the general practitioner. Although open access EGD has been available in some areas for over a decade its effect upon patient management in the primary care setting remains relatively unexplored. Most reports concentrate on findings at endoscopy, reiterating the adage that appropriateness of referral equates with a positive detection rate. Evidence suggests that the detection rate from open access EGD does not differ

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from referrals from hospital outpatient clinics, with normal results found in 30-40% of cases (4). The need to maintain the diagnostic yield from EGD had insisted to put proposals for protocols to filter patients when referring to invasive EGD (5). This study was undertaken to examine the outcome of open access EGD for patients referred from the general practitioner and out patient's clinics and the generation of excessive numbers of examinations.

Methods:

A total of 266 patients attending for EGD in endoscopy department in Al-Kindy Teaching Hospital from September- 2008 to Feb-2010, after direct referral from their general practitioner or a specialist, were included in the open access policy these include six characteristics (scoring system) to improve cost effectiveness of open access EGD this include age, history of vomiting, male gender, smoking, past history of peptic ulcer or hiatus hernia. 136 patients were examined after their referral from outpatient clinic in Al Kindy teaching hospital. Data were collected from all patients regarding full history including their chief complaint, duration and details of their history of present illness and full examination was done for them before EGD examination and they were all recorded in a proforma. Only six characteristics were selected (scoring system to improve the cost effectiveness of the open access EGD while all patients who were referred from outpatient's clinic of the hospital underwent EGD

In addition to that scoring system used as an inclusion criteria the following information was obtained from the patients: age, gender, symptoms of (abdominal pain, vomiting, loss of weight or appetite, hematemesis, melena, dysphagia), and present medications, characteristics of abdominal pain if present (for example, duration, and relation to food, antacids, and sleep); past history (peptic ulcer, hiatus hernia, or operations) and smoking. The diagnosis suspected by the general practitioner or a specialist at the time of the EGD referral was obtained from the original gastroduodenoscopy referral form .The patients were prepared before doing the test by fasting at the day of examination. No analgesia or sedation was used Examination was done from oropharynx to second part of duodenum. Biopsy was taken when there was any indication for that.

Statistical analysis was done and p value was estimated. P value is regarded significant if it is < 0.005

Results:

Two hundred sixty patients underwent EGD in this study. One hundred thirty patients underwent open access EGD. Eighty six (66.15%) of them were males and 44(33.85%) of patients were females. The Mean age was 45.9 years ranging from 20-85 years Table-1. Most of the patients were in the second decade of life (20-29 years) 29 patients (22.31%). The main complaint was epigastric pain in 114 patients (87.69%) followed by hematemesis in 44 patients (33.48%) and melena in 44 patients (33.48%). The duration of symptoms ranges from (6-24 months). History of non-steroidal anti-inflammatory drugs (NSAID) was reported in 21 patients (16.15 %) of them (Table -2-). After doing EGD, 30 patients (23.07%) had normal examination (table 3). Table 4 shows that the most common lesion was GERD in 43 patients (33.08%) followed by sliding hiatus hernia in 20 patients (15.38%), and atrophic gastritis in 17 patients (13.08%). Most of the patients had more than one finding like hiatus hernia (Figure 3), and duodenitis or GERD (Figure 2) and gastric ulcers (Figure 1) or lax cardia (Figure 4) While 136 patients who were referred from outpatients clinics of the hospital 93 of them (68.38%) were males and 43 (31.62%) wee females , most of the patients were in the third decade of life 39 patients (28.76%) . normal EGD found in 60 patients (44.12%) of patients . abnormal findings were reported in 76 (55.88% of cases. In 17 patients (12.5%) of cases the diagnosis was chronic active DU followed by GERD 16patients (11.76% and chronic atrophic gastritis in 13 patients (9.56%) , 6 patients (4.41%) were sliding hiatus hernia and duodenitis occurred in 9 patients (6.62%).

Table -1-Age distribution in open access gastroduodenoscopy.

Age group Years	Open access EGD Total number=80		Referral access EGD	
	No.	%	NO	%
20-29	29	22.31	36	26.47
30-39	23	17.7	39	28.67
40-49	28	21.54	27	19.84
50-59	20	15.38	16	11.76
60-69	20	15.38	11	8.08
70 >	10	7.69	7	5.14

Table-2- Demographic data of gastroscopy patients.

Patients history	Open access EGD No. %	Referred cases No. %
Gender Male/female	86/44 66.15/33.85	93/43 68.38/31.62
Duration of symptoms	6-24 months	7-28 months
Presence of		
Epigasrtic pain	114 87.69	115 84.66
Vomiting	21 16.15	16 11.76
Haematemesis	44 33.48	6 4.41
meleana	44 33.48	3 2.21
smokers	71 71.51	108 79.41
Past history of gastric or duodenal ulcers	33 25.38	66 48.53
Presence of any medication	21 16.15	23 24.26

Table3: shows the outcome of EGD in open access and referred cases.

Outcome of EGD	Open access No. %	Referred cases No. %
Normal gastroduodenoscopy	30 23.07	60 44.12
Abnormal EGD	100 76.93	76 55.88

X^2 =8.979, DF=1 P value=0.003.

Table-4- EGD findings in open access and referred cases.

Diagnosis	Open access No. %	Referred cases No. %
normal gastroduodenoscopy	30 23.07	60 44.12
Gastric ulcers	19 14.62	1 0.74
Duodenal ulcer	16 12.3	17 12.5
Hiatus hernia (sliding)	20 15.38	6 4.41
Gastritis with atrophy	17 13.08	13 9.56
(GERD)	43 33.08	16 11.76
Carcinoma	8 6.15	2 1.47
Esophageal varices	3 2.31	0 0
Laryngeal mass	1 0.76	0 0
Lax cardia	7 5.38	4 2.94
Bilious regurgitation	2 3.08	1 0.74
Duodenitis	6 4.62	9 6.62
Atonic stomach	3 2.31	1 0.74

Figure-1- Gastric ulceration.

Figure - 2 -GORD with lower esophagitis.

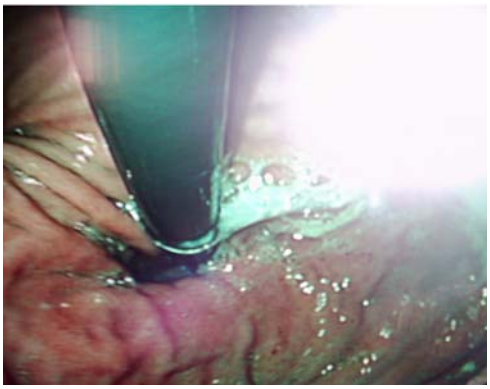

Figure- 3 - Sliding Hiatus hernia.

Figure- 4 - lax cardia.

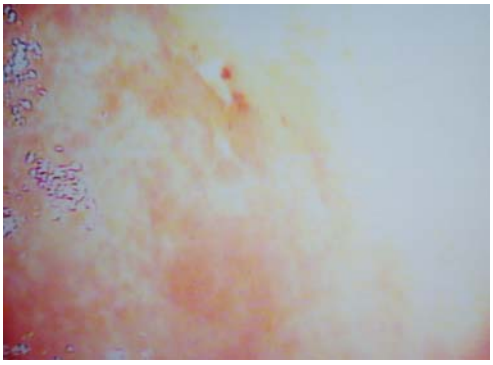

Figure 5 - Atrophic gastritis with ulceration.

Discussion:

The requirement for EGD continues to grow, provoking calls for doing endoscopy at selected groups of patients (6). Patients who were referred from practitioners and physicians by open access approach with good clinical judgment by physician and the strict use of six inclusion criteria can increase the detection rate of pathological conditions by EGD and decrease the number of unnecessary EGD (7,6). In spite of that most patients were referred by general practitioners and physician, our study shows that 30 patients (23.07%) of the patients had normal EGD which was lower than other studies which demonstrated that 36% of patients had normal EGD Mann et al (5) . while 100 patients (76.93%) had abnormal EGD . In 136 patients who were referred from the outpatient clinics of the hospital normal EGD was found in 60 patients (44.12%) and abnormal EGD was found in 76 patients (55.88%) this could be attributed to good clinical judgment , filtration of cases by a general practioners and physician (7).and the application of six characteristics (scoring system) to improve cost effectiveness of open access EGD which include increasing age, history of vomiting, male gender, smoking, and a past history of peptic ulcer or hiatus hernia. Others found that organization of open access EGD was of value to reduce the waiting time for EGD down to an average 17 days, providing of an adequately staffed and equipped gastrointestinal unit with well-motivated nurses, Close cooperation between medical and surgical gastroenterologists could be achieved and management must be involved in identifying adequate resources (4). In our study the patients waited for 24 hours only for preparation to EGD thus the open access technique reduces the waiting time for examination.Clearly, a system that permitted general practitioners and physician's unrestricted access to hospital gastroduodenoscopy services might have the advantage of permitting more rapid diagnosis and treatment. Open access EGD has a major effect upon patient management in general practice (8). So we adopt the decision of open access EGD and this was in agreement with Kerrigan *et al* 1990 (9). Regarding the age distribution in this study, the highest age incidence which is associated with pathological lesions wwere in the second decade of life as 29 patients out of 130(22.31%) have pathological lesion on EGD. While in other study found that the highest incidence were pathological lesion were found lies between 31 and 40 years (9) This may be due to stressful conditions what our patients were exposed to. while the age distribution in the referred cases were in the third decade of life 39 patients out of 136 (28.67%) which may be attributed to that most of the cases were referred from outpatient clinic of the hospital and the inpatients who were admitted to the hospital suffered from more serious conditions than patients who needed an outpatient treatment . In this study 63 patients out of 130 (48.46%) of EGD had a diagnosis of GERD hiatus hernia , 19 patients out of 130 (14.62%) had gastric ulcers and 8 patients out of 130 (6.15%) had carcinoma. Jones R, Lydeard SE, Hobbs FD found that 60% of their patients had reflux esophagitis (10) , while Holds tock *et al* 1979 found mucosal inflammation and Hiatus Hernia had a higher number(11) .While GERD and hiatus hernia constitute 22 patients out of 136 (17.17%) followed by duodenal ulcer 17 patients out of 136 (12.5%) and duodenitis in 9 patients out of 136 (6.62%) and chronic gastritis with atrophy in 13 patients out of 136 (9.56%). This difference could be attributed to that the referred cases were from inpatient and outpatients clinics.

Conclusions:

The clinical assessment and the strict application of the six inclusion criteria in open access EGD policy increase the yield of diagnosis of pathological lesions and decrease the number of unnecessary EGDs in our study. Targeting this service to patients aged below 30 years would increase the diagnostic yield and management.

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