Original Research Article

Analytical Study of Upper Gastrointestinal Endoscopy - 200 cases

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Abstract

Background: Esophagogastroduodenoscopy (EGD) is an important tool to visualize the upper part of the gastrointestinal tract up to the duodenum. It has the added advantage of being not only a diagnostic but also a therapeutic tool. It's importance in follow up cases is also well documented. It has indeed become a cost effective and reliable tool to modern surgery.

Materials and methods: Clinically symptomatic cases of upper GI tract were made to undergo Upper GI Endoscopy after an informed written consent. The study covered 200 patients who were then analysed for different parameters. Our study showed that majority of patients were in their 3rd decade with a male: female ratio of 2.03:1. Pain in abdomen was the main presenting complaint. Study showed that 62% of patients were smokers whereas 71% were non alcoholic. Gastritis was the prominent finding in 41 (20.5%) cases followed by Hiatus Hernia and Reflux Esophagitis in 19.5% and 13% respectively. The study was found to be normal in 28 cases (14%). This study was also able to detect rare findings like esophageal polyp and Mallory Weiss tear. Endoscopy was also done in post Gastojejunostomy patients to assess the stoma from within.

Conclusion: Endoscopy has proved to be a valuable tool in diagnosing as well as therapeutically treating patients with various pathologies. Upper GI endoscopy correlated well with the sign and symptom presentations in majority of patients and proved superior to conventional radiological studies. Thus endoscopy is not only useful and superior to many radiological investigations, but also helpful in therapeutic interventions as well as in follow up cases.

Key words

Esopahgogastroduodenoscopy, Endoscopy, Gastritis, Esophagitis, Duodenitis, Hiatus hernia.

Introduction

In modern surgery, Esophago-gastro-duodenoscopy (EGD) is an important tool to visualize the upper part of the gastrointestinal tract up to the duodenum [1]. It is considered a minimally invasive procedure since it does not require an incision into one of the major body cavities and does not require any significant recovery after the procedure (unless sedation or anaesthesia has been used). Endoscopy is useful in assessing a variety of pathologies. It is used not only as a diagnostic but also a therapeutic tool. Various procedures like variceal band ligation, sclerotherapy, polypectomy, biopsy and hemostasis of bleeders can be achieved in the same sitting. It has indeed become a cost effective and reliable tool to modern surgery. This study Analytical Study of Upper GI Scopy was carried out with the following aims and objectives: To analyse cases based on their clinical diagnosis and correlate with the Endoscopy findings, Co relate cases based on the following parameters like Age and sex distribution, Symptomatology and clinical presentation of patient, Clinical findings, Endoscopic results, Anesthesia type and duration of procedure.

Materials and methods

This analytical study of 200 cases of Upper GI scopy was carried out in the Department of General Surgery, Sumandeep Vidyapeeth University from March 2010 to August 2011.This is an analytical study whereby the patient data that was collected was analysed for the said parameters. This data was compared to standard reference studies that were previously carried out in the field. The selected patients were expected to undergo Upper GI scopy procedure in the Endoscopy OT of Dhiraj General Hospital after taking their informed consent for the same. Those patients who have presented with history related to gastric disorders and have been subjected to endoscopy were included. All patients were studied as shown in performa. Selection from both sexes in age group ranging from 10 years and above (Pediatric patients were not included because of unavailability of pediatric scope). Pediatric patients whose built was acceptable for an adult scope were included in the study .Patients were evaluated on indoor as well as outdoor basis. After history taking and physical examination, patients were subjected to fibre optic UGI Scopy. Patients were selected for Local or General Anesthesia depending upon Patients choice, Local anesthesia for medically unfit patients, compliant patients, general anesthesia for pediatric and old age group, noncompliant patients.

Preparation of the patient

- Explanation of reason for the procedure and about the procedure to the patient.
- Patients were kept fasting from 8.00 am on day of endoscopy.
- Inj Atropine 1 ampoule was given ½ hour before the procedure.
- Patients were given 4% xylocaine viscus in their mouth, and to retain it for 10-15 minutes for local anesthesia.

Instruments

Fibre Optic flexible Oesophago-gastro-duodenoscope.

Model: Olympus CLV – U20.

Post Procedure

Post procedure the patients were observed in the surgical ICU for approximately 1 hour, and then shifted to their respective wards. Patients undergoing the procedure in Local Anesthesia were immediately started on liquids orally following the procedure. Patients requiring General Anesthesia, were kept NBM for 2 hours.

Results

In this study of 200 cases of upper GI endoscopy, clinical diagnosis was carried out after history and clinical examination and patients were subjected to endoscopic examinations. Symptomatology and clinical presentation were as per **Table – 1**. Endoscopic results were as per **Table – 2**.

Table – 1: Symptomatology and clinical presentation.

Clinical presentation	No. of patients
Vomiting	21
Hematemesis	11
Malena	3
Pain	104
Weakness	1
Dysphagia	33
Fullness after meal	35
Heartburn	1
Heaviness	1
Nausea	1

Table – 2: Endoscopic results.

Disease	No. of Lesions
Reflux esophagitis	26
Hiatus Hernia	39
Gastritis	41
Gastric Ulcer (Benign)	20
Ca Stomach	0
Duodenal Ulcer	5
Duodenitis	19
Normal	28
Ca esophagus	22
Esophageal ulcer	2
Achalasia cardia	5
Esophageal varices	11
Benign esophageal stricture	5
Ampullary growth	5
Total	228

Discussion

In this study, most patients were in 3rd, 4th and 5th decades. Maximum number of patients was in 3rd decade (30%). The youngest patient was 6 years and oldest patient was 85 years. Commonest finding was gastritis. A study of Villako and Siurala [2], the mean age of gastritis was found in range of 40 to 46 years. In our study, majority of patients with gastritis were in the age group of 31 to 40 years. In our study, acid peptic disease is found in 22 to 65 years age group, common age range is 31-40 years. Study of Baron J. H. [3] suggests that peptic ulcer is seen in age group of 50-80 years. Duodenal ulcer cases are younger than gastric ulcer. Average age of duodenal ulcer is 44 years and gastric ulcer is 56 years. In our study average age of duodenal ulcer patient is 44 years and gastric ulcer patient is 39 years old. Endoscopy has diagnosed 200 lesions, most common lesion being gastritis 41 cases (20.5%). Endoscopy was normal in 28 cases (14%).

A study of 50 cases undergoing EGD scopy by Barros P., Bussaleu A [4] showed following results:

- Normal 30%
- Duodenitis 18% and other lesions like ulcer and gastritis in rest two percent patients.
- G.lambia was found in 19% cases without endoscopic duodenitis.

Results of present study in evaluation of Upper GI endoscopy showed duodenal ulcer 12%, gastritis 26%, Ca stomach 8%, gastric ulcer 4%, reflux esophagitis 6%, normal 16% showing lesions in 84% cases. It gives provisional diagnosis suspected from clinical symptoms and signs, but it is not always possible to reach to certain diagnosis, especially for lesions like esophagitis, hiatus hernia or achalasia cardia [5]. Esophagitis was diagnosed by endoscopy in 26 cases (13%), most of it was associated with gastritis. Benjamin H. Suliran [6] has noted that in case of reflux esophagitis, EGD scopy has specificity of 96% and sensitivity of 68% only. R. J. Seller, et al. [7] have concluded that compression barium was most sensitive (71%) and accurate (72%), while endoscopy most specific (94%) but least accurate (64%) in detecting acid reflux. Most common endoscopic finding in our patients subjected to Upper GI scopy was gastritis (41/200 cases – 20.5%). Most of them were detected near pylorus and fundus. In Igor Laufer, John Hamilton study of 267 patients undergoing endosopy, gastric erosions have been demonstrated in 30 cases. In a study by David J. Ott, et al. [8], of 54 patients with endoscopic erosive gastritis 37 were subjected to

Barium study. 16/37 cases (43%) were detected by radiology and impressed that incomplete erosions are relatively flat and detected rarely by radiography. Personnel J. has shown that H. pylori has been linked with chronic atrophic gastritis, an inflammatory precursor of gastric adenocarcinoma and H. pylori may be a co-factor in the pathogenesis of malignant condition as 84 % of carcinoma stomach were previously infected with H. pylori, while 61% of normal were infected with H. Pylori [9].

Navinadekar S. A. has shown that prevalence of H. pylori in young Indian population may be as high as 70% but peptic ulcer is seen only in 1-3% though may produce gastritis in nearly 50% [10]. In duodenal ulcer almost 90% have positive H. pylori. In a study of 100 patients by Grace, et al. [11], gastritis was seen in 23 % of cases with 42% cases having NSAID's use. Co incidental duodenal ulcer and erosive duodenitis were common and frequent in idiopathic gastritis. Antral gastritis was most frequently reported. Small number of patients in our study group had taken over the counter drugs, the details of which were not available. A study by P. J. Howard showed the incidence of Achalasia cardia to be 0.8%. In our present study we reported 5 cases with achalasia cardia (2.5% of cases). Only one case had the classical history of dysphagia, as compared to the study by P. J. Howard which had majority of patients presenting with dysphagia. Our case study showed that endoscopy was helpful in picking up achalasia in cases which presented with simple vomiting post meals. A study by Irving B. Brick, et al., showed that hiatus hernia was the second most frequent diagnosis (308 patients) out of the 3,448 patients undergoing upper GI endoscopy. A study by Berstad A, et al. showed that incidence of hiatus hernia was 16.6% in the 670 patients referred to them for upper GI scopy.

Conclusion

Endoscopy has proved to be a valuable tool in diagnosing as well as therapeutically treating patients with various pathologies. Upper GI endoscopy correlated well with the sign and symptom presentations in majority of patients and proved superior to conventional radiological studies.

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