



ROLE OF UPPER G.I ENDOSCOPY IN THE MANAGEMENT OF BENIGN AND MALIGNANT CONDITION OF STOMACH

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ABSTRACT The benign and malignant diseases of stomach cancer are the main issues of concern for the patient for treatment. Upper GI endoscopy and its transparency is a very useful and sensitive early diagnosis. Management and follow-up of the stomach with upper GI endoscopy is considered to be a gold standard. For this study 300 patients were selected at random from cases admitted to the different units of the department of general surgery of IMS & SUM Hospital, Bhubaneswar during the period from Jan 2016 to January 2017. Out of 300 cases; 64 cases were found out to be normal study which is 19.2% of total studied population. Upper GI endoscopy is the most important diagnostic tool in acid peptic disease, so we feel that endoscopy examination must be carried out in all cases of acid peptic disease for early detection, thus preventing its different complications.

KEYWORDS : Ulcer; Stomach cancer; Upper GI endoscopy

Introduction

Benign and malignant disorders of stomach are the major concern for the patients for which they seek medical attention. Early diagnosis and correct management reduces the health burden and associated morbidity and mortality. Barium meal and x-ray, the mainstay for diagnosis till date has been fallen into disfavor, for it is less sensitive for early lesions and for differentiating benign and malignant disorders. Upper GI endoscopy with its armaments is very useful and sensitive for early diagnosis. Management and follow up of stomach disorders and is regarded as the gold standard.¹

The common benign and malignant disorders of stomach: Peptic ulcer, Oesophago-gastroduodenitis, Gastric polyp, Gastric carcinoma. Peptic ulcer disease remains a mystery, wrapped in an enigma, yielding up its secrets reluctantly to the ardent researcher.² Its pathogenesis for example, remains unclear despite the brilliant minds that have grappled with the problem and the rich store house of literature that exists. It is one of those diseases that had been recognized by the earliest civilization and in fact, no other gastrointestinal disease has attracted as much attention from patients and doctors as peptic ulcer has. Yet, despite the complexity in recent years there has been a considerable progress in our understanding of path physiology and treatment of this disease basing in the newer diagnostic tool.

The term peptic ulcer refers to an ulcer in the lower oesophagus, stomach, duodenum, jejunum after surgical anastomosis to the stomach or rarely in the ileum adjacent to a meckel's diverticulum. The ulcer may be either acute or chronic. Chronic ulcer is by far much more common, although acute ulcers arise mostly in the gastric mucosa. In Indians the ratio of duodenal to gastric ulcer is 30:1 (baily and love). The symptoms are sometimes vague and bizarre thus confusing with other allied diseases. Because of the development of the different newer diagnostic modalities the diagnosis of peptic ulcer has become easy. The shortcoming of the conventional barium meal and x-ray examination of the upper gastrointestinal tract has been recognized for many years.³ When this method is used the lesions are only detected if they cause a defect in the barium filled stomach. The radiography thus obtained shows, the lesion in profile, as a result, only medium and large size lesions are demonstrated. Small lesions or minor changes in the mucosal pattern elude detection. The double contrastbarium meal x-ray examination and endoscopic study overcome this disadvantage. The barium meal study depends primarily on the mucosal coating with give excellent mucosal details and it makes much easier to distinguish between the need for diagnostic fluoroscopy.⁴

Although, there is a marked decline in the incidence of gastric carcinoma in many industrialized nation, the cancer of the stomach still remains one of the most common cause of the cancer related deaths in the world. It is only surpassed by the rapid spurt in lung cancer since 1970. In 1930, gastric carcinoma was the captain of cancer related deaths among American men and the third most common cause among women. Over subsequent 50 years, the incidence in U.S dropped from 33 to 10 per 100,000 men and from 30 to 5 per 1000,000 women. Gastric adenocarcinoma (commonly referred to as gastric cancer) accounts for 95% of all gastric malignancies. Each year approximately 800,000 new cases are discovered and 650,000 persons die of this disease.⁵ While different developments are taking place in radiology, major advances are also being made in the design and manufacture of endoscopic equipments. Rigid open tube oesophagoscopy, rigidgastroscopy and semi flexible lensgastroscopies did provide good diagnostic information's in the past, but these instruments never had a place in modern practice. In 1950's the Japanese introduced the gastro cameras. This gastro camera made an enormous impact in diagnosis cancer which is most prevalent in Japan and is still in use for mass screening procedures.⁵ With the modern fibreoptic instruments, it is possible to visualize and photograph lesions and to obtain aimed biopsy and cytology specimens. Besides these, certain therapeutic procedures can also be done endoscopy like polypectomy, removal of foreign body injection sclera therapy for bleeding ulcer and haemangioma and varices.

Materials and Methods

The patients for this study were selected at random from cases admitted to the different units of the department of general surgery of IMS & SUM Hospital, Bhubaneswar during the period from Jan 2016 to January 2017. Three hundred patients were having clinical symptoms as pain in abdomen, acid eructation, anorexia, nausea, vomiting haematemesis and melaena. In all the cases, the endoscope used was the fiber optic OLYMPUS endoscope connected to Lenovo LCD monitor 21" PC. The patient is assured that the instrument is neither rigid nor metallic but flexible and can be passed into the oesophagus without any effort of this own. The patient is informed that gagging will be minimized by tropical anaesthesia and that is not necessary to swallow the instrument. Although the risk is miniscule, the patient is told about the complications and that he or she will be under observation for a period of time after the procedure.

Results

The 300 patients, has carried out in this study; maximum number of patients are belongs to the age-old and over 61 (25.0%). The minimum

number of patient in this study are belongs to the age of 11 - 20 years and their percentage of frequency is 3.66% (Table-1). The 300 patients, has carried out a study on 186 patients were males and 114 females (62.8% and 38% respectively) (Table-2). The 300 case studies, maximum number of cases registered under etiology of chronic gastritis, followed by acute diffuse gastritis and erosive gastritis (Table-3). Out of 300 cases; 64 cases were found out to be normal study which is 19.2% of total studied population (Figure 1a). Benign pathological changes in the stomach (Figure-2c, 2d) and duodenum were 211 cases and 25 cases found out to be malignancy of stomach (Figure 1b) (Table-3).

Table-1 Distribution of Age

Age	Frequency	Percentage
11-20	11	3.66%
21-30	47	15.66%
31-40	46	15.33%
41-50	63	21.0%
51-60	58	19.33%
61- Above	75	25.0%
Total	300	100%

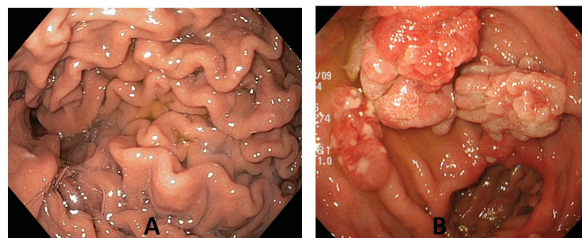
Table-2 Distribution of gender

Gender	Frequency	Percentage
Male	186	62%
Female	114	38%
Total	300	100%

Table-3 Distribution of Patients according to etiology

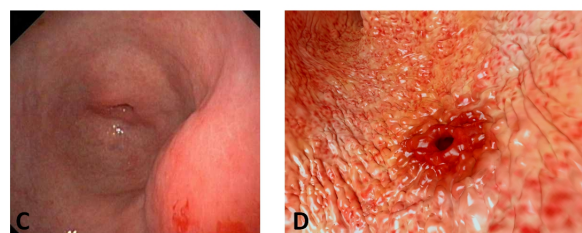
Etiology	Numbers of patient	Percentage
Acute diffuse gastritis	52	15.6%
Chronic gastritis	58	17.4%
Atrophic gastritis	7	2.1%
Reflux bile gastritis	35	10.5%
Erosive gastritis	37	11.1%
Pyloric stenosis	5	1.5%
Chronic gastric ulcer	6	1.8%
Duodenal Ulcer	11	3.3%
Carcinoma stomach	25	7.5%
Normal studies	64	19.2%
Total	300	100%

Figure-1 Normal stomach and CA stomach view by Upper GI endoscopy



A- Normal gastric mucosal fold; B- Fungating growth of gastric mucosa

Figure-2 Upper GI endoscopy of pyloric stenosis and gastric ulcer



C- Pyloric stenosis; D- Gastric Ulcer

Discussion

In the present study, maximum number of cases subjected to fiber optic endoscopy belonged to the age group of 61 years and above (25.1%)

and 51-60 years (21.5%). In the present study, the maximum patient accepts endoscopic examinations are male (61.6%). In a study by Naniwadekar and Kuwait series for the maximum number of patients suffering from endoscopic examination are male (72.5% and 62%, respectively), which concurred to our research.

In this study, the majority of the patients pain abdomen followed by vomiting. In a study by Ray and Pal in 9398 studied cases, most of the patients were similar to the suffering of the complaints in the abdomen.⁶ The same in one study of Kuwait series most patients' pain in the abdomen.

In this study, most of the patients on upper GI endoscopy were found to have chronic gastritis and acute diffuse gastritis. This can be explained because of heavy alcohol and smoking consumption in the laborer group of people in this area. Alcohol and smoking lowers the pyloric pressure, and that leads to reflux of bile leading to the damage of gastric mucosal barrier. Our results are comparable to study done by Ray and Pal and Shennak *et al.*^{6,8}

The incidence of stomach ulcer is a very low level of approximately 1.8% as compared with other research Al-Nakib and Al-Liddawi; Ray and Pal is 5.9% and 4.9%.^{6,7} Morbidity rates for the population of the rural duodenal ulcers gastric ulcer and is the very low (3.3%), in the age of older persons. This may be due to the widespread use of proton pump inhibitors in old people as PPI common provisions and non-steroid anti-inflammatory medication and antiplatelet agents used for cardiovascular disease, cerebrovascular disease, and rheumatological diseases. In addition, the PPI can easily over the counter does not have any cost.

The gastric cancer in our study found 7.5%, M:F ratio is 1.5:1. The stomach cancer is 6.5% in a study by Ray and Pal.⁶ The Database Kidwai Memorial Institute of Oncology (KMIO) 2004 -2005, Bangalore, State of Karnataka incidence rate of gastric cancer is 9%. The maximum patient in the age group of 51 -70 years with an average age of 58.5 years, equivalent to 56 as quoted by the Tata Memorial Hospital and 53, quoted by the Najjibullah.

Conclusion

Upper GI endoscopy is the most important diagnostic tool in acid peptic disease allowing a precise description of the lesion in all most all cases. Its value in assessing ulcer healing in therapeutic trials has well been established. The endoscopic appearance of acid peptic disease, especially its size may serve as a prognostic parameter of ulcer healing. So we feel that endoscopy examination must be carried out in all cases of acid peptic disease for early detection, thus preventing its different complications.

Conflict of Interest- None

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