Upper GI Endoscopy at Community Based Hospital -A Prospective Study

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Abstract
Objective: To determine the usefulness of upper GI endoscopy in the general populations who attended our hospital for upper abdominal complaints.
Methods: we undertook the study in St Joseph's hospital Midnapore which is a 30 bedded community hospital for semi urban population.

Materials: All patients attending our hospital with upper abdominal complaints underwent upper GI endoscopy.

Results: Upper GI endoscopy was done in 320 patients, out of which males were 205, females were 115. Maximum patients were in age group of 21-60 years (85.3%). Upper GI study was normal in 63 patients (19.6%). Abnormal findings were seen in 255 patients (79.6%).

Conclusion: Upper GI endoscopy is a useful investigation which gives a clear idea about upper abdominal pain. In our study there were 80% of abnormal findings which needed medical therapy.

Keywords- *Gastritis, dyspepsia, GI endoscopy*

I. INTRODUCTION

Population suffering from upper gastrointestinal (GI) symptoms such as upper abdominal pain, indigestion, dyspepsia, gastrointestinal bleeding is increasing day by day. Upto 25% of the population is supposed to be suffering from this common malady. Unfortunately majority of these people do not seek timely medical help and take over the counter medications such as antacids and proton pump inhibitors(PPIs).

An upper GI endoscopy will definitely help to diagnose and to evaluate the prognosis by regular endoscopy at intervals to follow up the patients.

We at St Joseph's Hospital Midnapore undertook this prospective study in the semi urban population.

II. MATERIAL AND METHODS

This was a prospective study for one year from 1st May 2012 to 30th April 2013.This study was conducted at St. Joseph's hospital, which is a 30 bedded community based hospital which caters to health care needs of rural and semi urban population.

A. Inclusion Criteria

All the patients with symptoms of upper abdominal pain, indigestion, dyspepsia were included of both sexes and ages from 18-85yrs.

B. Exclusion Criteria

Children below the age of 16yrs were excluded. All the sick and moribund patients were excluded as there is need for ICU setting which we do not have at present.

III. RESULTS

Total number of patients : 320

Males : 205

Females : 115

Male: Female : 1.7: 1

Male predominance is seen

Maximum patients were in the age group of 21- 60 years, total number of patients were 273 (85.3%), male were 180 patients and female were 93 patients.

Least number of patients were seen in age group of 70-80,of which males were only 4 (2.5%) and also 4 females(Table 1).

Normal upper GI study = 63 patients (19.6%)

Abnormal findings = 255patients (79.6%)

Non co-operative = 2 patients

This upper GI endoscopy study reveals abnormal findings upto 80%, which reflects a high incidence of positive pathology.

Normal upper GI is seen in 63 patients(19.6%)which indicates the apprehension of the population who wanted to have endoscopy to rule out any abnormality, which is a positive trend towards health awareness.

Table 1

Age	Male	Female
16-20 yrs	08	06
21-30	40	25
31-40	52	27
41-50	48	27
51-60	40	19
61-70	07	04
71-80	04	04
>80	06	02
Total	205	115

Showing gender and age distribution

IV. DISCUSSION

Endoscopy is an expensive investigation, (1, 2, 3) with most of this exposure being borne by the cost of the equipment and their maintenance. Majority of patients referred for endoscopy complain of symptoms that come under the general heading of dyspepsia (4, 5, 6, 7, 8). It is the best form of investigation for upper GI bleeding because of its better diagnostic yield (9, 10). In United States the annual rate of hospitalization for upper Gastrointestinal bleeding is estimated to be 165 per 1,00,000 more than 3,00,000 hospitalization per year, at a cost of $ 2.5 billion (11, 12).The first fiber optic endoscope was invented by Basil Hirschowitz and Larry Curtiss in 1957.(13)

Type of equipment Olympus, Pentex, Karl Storzetc are available in market..

Commonly used endoscopes for upper GI is Olympus No: Q 150with video attachment and printer.

We use Gastrointestinal Videoscope OLYMPUS GIF TYPE Q 150.

PROCEDURE AND PROTOCOL:-

All our patients are booked in advance for endoscopies and they are asked to come in after overnight fasting.

All routine blood investigations are drawn in the morning before procedure as a part of general checkup. Haemogram, blood urea, serum creatinine and random blood sugar are done.

Xylocaine viscus is given to keep in the mouth and swallow later to anaesthetize the oral and pharyngeal mucosa. The patient is kept in left lateral position. The endoscopist stands on to the right side of the patient and the endoscopist facing the monitor screen.

Gastroenterologists in United States of America have routinely sedated their patients as a part of endoscopic service. (14)

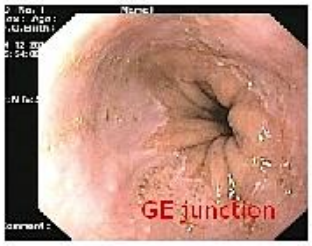
In recent years anesthetists and nurse anesthetics are asked to routinely give sedation to their patients rather than themselves.

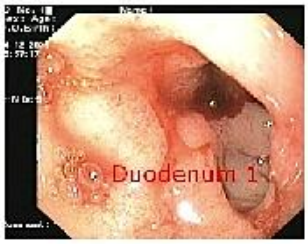
We at our centre use local anesthetic gel and for spray for our patients and occasionally give sedation to the patients by assistants which is more practical and cost effective.

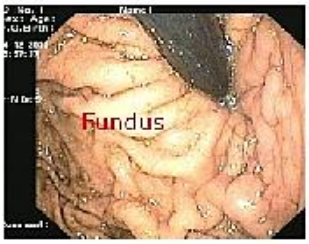
Written consent is obtained and the procedure is explained. The endoscopy is performed and video photographs are taken at esophagus, GE junction, stomach, duodenum, 1st and 2nd part.'J'manouver is done to see for Hiatus hernia. Biopsies are taken when indicated. At the end of the procedure air and water is sucked out.

In a large group of patients of 928 undergoing UG endoscopy for upper GI bleeding the author found that there was male preponderance 560 male and 368 females (3:2). The most common finding was bleeding peptic ulcer seen at duodenum. Biopsy was taken in all the suspected cases of malignancy which was positive in 7 cases. (15)

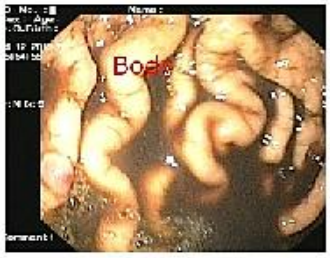
Bleeding duodenum ulcer







REPORT OF UPPER G.I. ENDOSCOPY



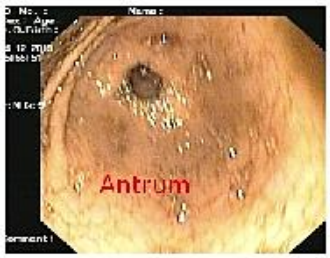
Scope : OLYMPUS VIDEOSCOPE
Medication : Lignocaine spray 10%
Indication : Dyspepsia

FINDINGS

ESOPHAGUS : Normal, No Varix / Ulcer / Stricture / Growth

STOMACH :

Fundus : Normal
Body : Normal
Antrum : Normal

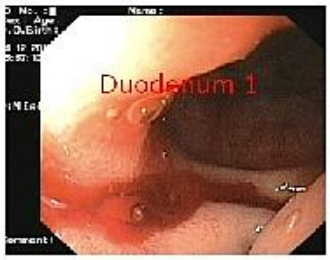


Pylorus : Normal

DUODENUM

First Part : Bleeding duodenal ulcer present .
Second Part : D2 Normal

IMPRESSION : Coffee ground material in stomach with bleeding duodenal ulcer in first part of duodenum.



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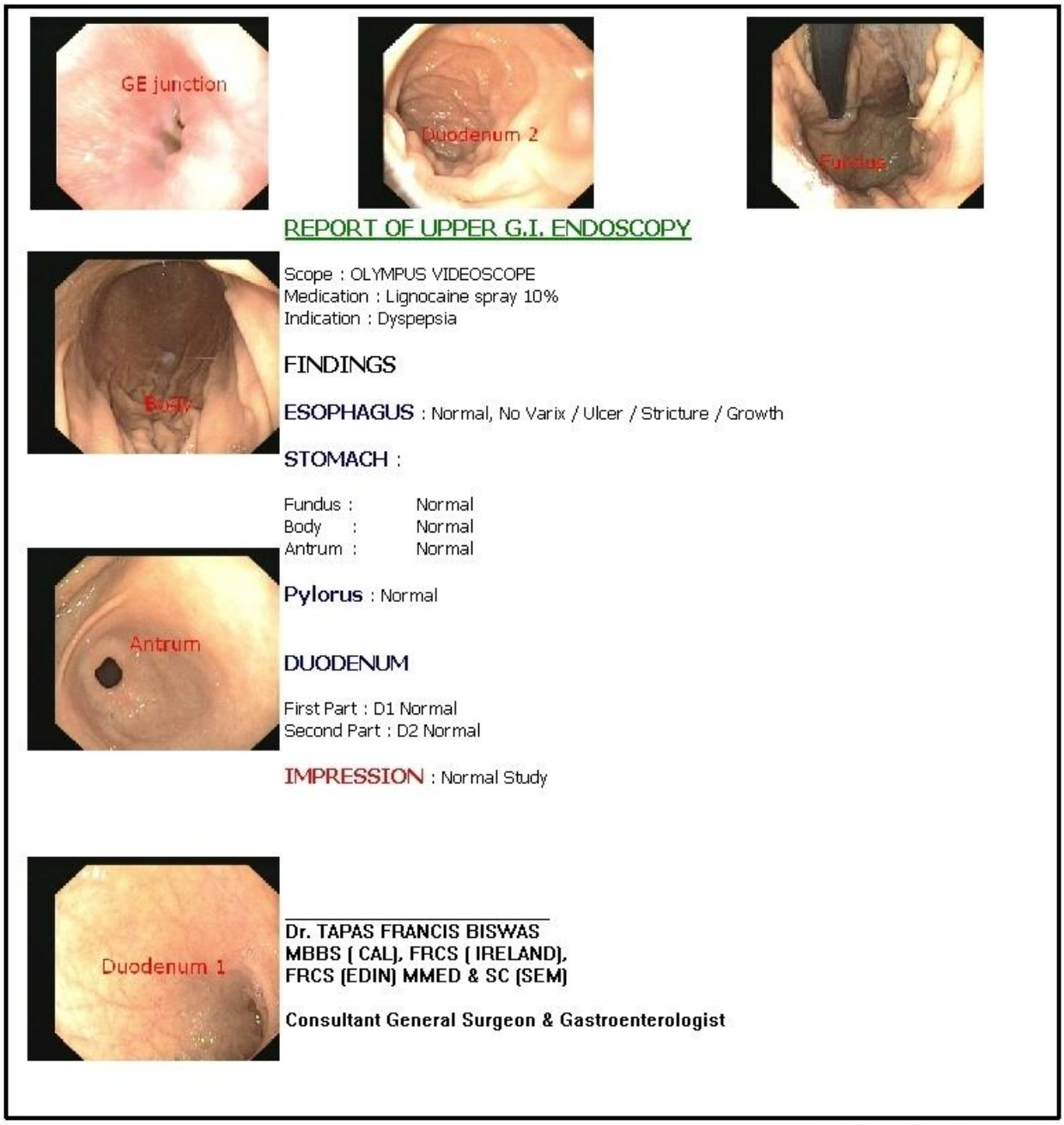
Normal study



Hematological and biochemicalcorrelations:-

It was interesting to note that the patients who had normal upper GI study their Hb%, Blood urea, Serum Creatinine and RBS were within normal range.

The patients who had severe antral Gastritis and erosive gastritis and esophageal varices, their Hb was ranging from 7.8Gm% to 10.2Gm% suggesting anaemia to be an associated factor. Random Blood Sugar was noted to be low 70 to 80mg%.

In a recent study of 100 cases of upper GI bleed who underwent endoscopy in the medical intensive care unit, the most common cause of upper GI bleed was 70%, and the presentation was haemetemesis. (16)

In a large study of 486 patients, gastric & duodenal biopsies were taken in which there were abnormal (pathological) findings in the stomach & duodenum.

Histopathological finding were suggestive of superficial gastritis in 169(18.5%), Helicobacter gastritis in 141 patients (15.5%) and gastric gastrinoma in 20 patients (2.2%). (17)

Follow up: we have done follow up of our patients for 3months and also review endoscopy was done in some patients to know the improvement objectively.

V. CONCLUSION

We assert that endoscopy should not be delayed in symptomatic patients, because patients who underwent endoscopy might have malignant tumor and it should be supported with histopathological study biopsy? Ultrasound?

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