

Original Articles

GASTROSCOPY IN UPPER GASTRO-INTESTINAL SYMPTOMS

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Abstract

Gastroscopy was performed in 298 patients, 148 examinations were negative, 43 patients had gastric carcinoma, 26 patients gastric ulcer, 27 duodenal ulcer, 1 duodenal carcinoma, 22 gastritides and 5 duodenitis. There were 7 failures, 19 patients with gastro-enterostomies underwent endoscopy for recurrence of symptoms post operatively, 5 had anastomotic ulcers, 2 gastritides, 2 jejunitis and in 9 there was no gastroscopic findings. There was one failure to visualize the stoma (JPMA 29:87, 1979).

Introduction

The development of fiberoptic endoscopy has led to an increasing diagnostic accuracy in many disorders of the gastro-intestinal system (Colcher 1973) if the lesions are within the range of the endoscope being used.

Material and Methods

During a 10 years period, August 1968-August 1978, gastroscopy was performed in 298 patients within the age range 14-75 years. Cases presenting diagnostic problems were referred from the Jinnah Post-graduate Medical Centre, Civil Hospital, private hospitals and attending clinicians.

Patients were prepared for endoscopy using Atropine gr 1/100 and Pethidine 100 mgs intramuscularly and Valium 10-30 mgs intravenously.

The Hirschowitz Fibergastroscope was used in 161 examinations, lesions high up in the fundus and upper body are not usually visualized by this gastroscope. The Olympus JFB type 2 duodenofiberscope was used in 137 patients during 1977-78. This is a side viewing instrument and the esophagus is not visualized; thus esophageal lesions are likely to be missed.

Radiographic studies were available in 196

patients. Indications for endoscopy were epigastric pain, dyspepsia, gastro-intestinal bleeding, epigastric mass or radiological suspicion of benign or malignant lesions of the stomach and duodenum.

Results

Of 298 examinations, 148 i.e. 40% were negative (Table I). Of 26 patients with gastric ulcer a clinical diagnosis was made in 24 and a radiological in 22 (Table II). Forty two of 43 patients with gastric carcinoma were diagnosed clinically and 37 radiologically. Diagnosis of 27 patients with duodenal ulcers was confirmed on endoscopy, a radiological diagnosis was made in 14 patients and Barium studies were not available in 11.

Table I. Results of 298 Gastroscopies

Negative examinations	148
Gastric carcinomas	43
Gastric ulcers	26
Gastritides	22
Duodenal ulcers	27
Duodenal carcinoma	1
Duodenitis	5
Gastroenterostomies	19
Failures	7
Total	298

The patients with gastritides were divided into four groups (Table II). Of 17 patients in the first three groups a clinical diagnosis was made in 5 and radiological in 6; thus endoscopy is the best diagnostic procedure in patients with gastritis. Four patients with erosive gastritis gave history of taking aspirin within 24 hours of gastro-intestinal bleeding and one of resochin.

The diagnosis of duodenal carcinoma was made on surgery as on endoscopy only a pinpoint pylorus was seen and the duodenum could not be intubated.

The mean age of males was greater than that of females (Table III). A preponderance of gastroduodenal disorders was observed in males, the exception being non-ulcer dyspepsia where the number of females exceeded the males.

Patients with duodenal ulcers presented with gastro-intestinal bleeding, and pain both nocturnal and with radiation to the back (Table IV). In patients with gastric lesions burning abdominal sensation and weight loss were the prominent symptoms. Anaemia was more frequent in patients with gastric lesions (Table V).

Table II. Clinical and Radiological Diagnosis in Patients with Positive Gastroscopy

<i>Final Diagnosis</i>		<i>Clinical Diagnosis</i>		<i>Radiological Diagnosis</i>	
Gastric ulcers	(26)	Gastric Ulcer	24	Gastric Ulcer	22
		Gastric Carcinoma	1	Gastric Carcinoma	2
		Duodenal Ulcer	1	Duodenal Ulcer	1
				Not available	1
Gastric carcinoma	(43)	Gastric Carcinoma	42	Gastric Carcinoma	37
		Gastric Ulcer	1	Gastric Ulcer	1
				Duodenal Ulcer	1
				Gastric Stasis with hiatus hernia	1
				Normal	2
				Not available	1
Duodenal ulcer	(27)	Duodenal Ulcer	27	Duodenal Ulcer	12
				Duodenal Ulcer with Gastritis	2
				Gastritis	1
				Pyloric Stenosis	1
				Not available	11
Gastritides	(22)	Gastritis	4	Hypertrophic Gastritis	4
		Gastric Carcinoma	2	Gastric Carcinoma	2
a) Hypertrophic	(7)	Gastric Ulcer	1	Gastric Ulcer	1
b) Antral	(4)	Gastric Ulcer	2	Gastric Ulcer	1
		Gastric Carcinoma	1	Gastric Carcinoma	1
		Duodenal Ulcer	1	Not available	2
c) Generalized superficial	(6)	Gastritis	1	Gastritis	1
		Gastric Carcinoma	1	Hypertrophic Gastritis	1
		Duodenal Ulcer	2	Gastric Ulcer	1
		Pyloric Stenosis	1	Pyloric Stenosis	2
		Non-Ulcer dyspepsia	1	Not available	1
d) Erosive	(5)	Erosive Gastritis	4	Not available	5
		Gastric Ulcer	1		
Duodenitis	(5)	Duodenal Ulcer	4	Duodenal Ulcer	2
		Giardiasis	1	Duodenitis	1
				Normal	1
				Not available	1
Duodenal Cancer	(1)	Duodenal Ulcer	1	Duodenal Ulcer	1

Table III. Age and Sex Distribution in G. I. Disorders

<i>Disorder</i> (No. of Pt.)	<i>Mean Age</i>		<i>Male</i>		<i>Female</i>		<i>M:F Ratio</i>
	<i>Male</i> (Range)	<i>Female</i> (Range)	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	
Gastric Carcinoma (43)	51.2 (30-77)	48.3 (20-65)	27	62.8	16	37.2	1.6:1
Gastric Ulcer (26)	47.5 (24-74)	38.3 (29-58)	20	76.9	6	23.1	3.3:1
Duodenal Ulcer (27)	41.8 (20-70)	39.2 (18-55)	22	81.5	5	18.5	4.4:1
Gastritides (22)	42.1 (20-69)	31.7 (17-52)	13	59.1	9	40.9	1.4:1
Duodenitis (5)	29 (25-32)	27.5 (25-30)	3	60	2	40	1.5:1
Non-Ulcer Dyspepsia (54)	37.7 (16-70)	36.9 (14-75)	24	44.4	30	55.5	1:1.3

Table IV: Presenting Symptoms in Gastroduodenal Disorders

Symptoms	Gastric Ulcer (26)		Gastric Carcinoma (43)		Duodenal Ulcer (27)		Gastritis (22)	
	No.	%	No.	%	No.	%	No.	%
Anorexia	1	3.8	6	13.9	2	7.4	2	9.1
Nausea	3	11.5	2	4.6	4	14.8	2	9.1
Vomiting	0	26.9	17	39.5	12	44.4	9	40.9
Dysphagia	0	0	3	7	0	0	0	0
G. I. Bleeding	14	53.8	18	41.9	16	59.2	11	50
Pain	26	100	36	83.7	24	88.8	17	77.2
Radiation	5	19.2	2	4.6	8	29.6	1	4.5
Nocturnal	1	3.8	2	4.6	6	22.2	1	4.5
Burning	3	11.5	6	13.9	1	3.7	3	13.6
Aerophagy	1	3.8	3	7	2	7.4	1	4.5
Mass	0	0	10	23.2	0	0	0	0
Weight Loss	11	42.3	30	70	2	7.4	6	27.2

Table V: Signs in Gastroduodenal Disorders

Signs	Gastric Ulcer (26)		Gastric Carcinoma (43)		Duodenal Ulcer (27)		Gastritis (22)	
	No.	%	No.	%	No.	%	No.	%
Anaemia	13	50	25	58.1	4	14.8	10	40.4
Tenderness	2	7.7	1	2.3	6	22.2	2	9.1
Ascites	0	0	3	7	0	0	0	0
Oedema	0	0	2	4.6	0	0	0	0
Jaundice	0	0	1	2.3	0	0	0	0
Splash	0	0	0	0	1	3.7	0	0

No gastric lesion was seen in 141 patients (Table VI). Peptic ulcer disease was diagnosed clinically in 46 and radiologically in 21. barium studies were not available in 16. There is thus a tendency towards over diagnosis of peptic ulcer both clinically and radiologically.

A group of 54 patients with non-ulcer dyspepsia were endoscoped as they served as controls in the gastric secretory studies and in a study on normal gastrointestinal flora. These patients presented with anorexia, nausea, vomiting, pain that neither radiated, nor was it nocturnal in character, flatulence and burning sensation. Anaemia and weight loss were present in only 7.4% of patients. There was no history of gastrointestinal.

Nineteen patients with gastroenterostomies underwent endoscopy for recurrence of symptoms. 5 had anastomotic ulcers, 2 jejunitis (one on surgical exploration which revealed edema of stoma, jejunitis and a bleeding jejunal ulcer) and 2 gastritis. In nine no lesion was seen. In 1 patient the stoma could not be visualized due to hypersecretion.

There were 7 failures, 2 were due to non-cooperation of the patients, 2 due to esophageal narrowing as a result of carcinoma, 1 due to crico-pharyngeal spasm and in 2 there was failure to intubate the duodenum.

Discussion

Gastroscopy has been used for determining the causes of gastrointestinal bleeding, but gastric lesions account only for about a half of all bleeding episodes (Cotton et al., 1973). Patients with previously known or suspected lesions frequently bleed from other sites (Eastwood 1977).

Functional abdominal pain is a common cause of chronic abdominal pain (Ament and Christie, 1977), and upper gastrointestinal and small bowel series should be done first in the patient with chronic abdominal pain. A negative examination in a patient with melena would indicate the need for investigation of the distal bowel (Cotton et al., 1973).

Prompt endoscopy in patients with gastrointestinal bleeding results in a greater diagnosis.

Table VI: Clinical and Radiological Diagnosis in Patients with Negative Gastrosopy

<i>Final Diagnosis C. No. of patients</i>	<i>Clinical Diagnosis</i>		<i>Radiological Diagnosis</i>	
Normal Stomach (141)	Gastric Ulcer	25	Gastric Ulcer	8
			Gastric Carcinoma	1
			Pre-pyloric spasm with ulcer	4
			Not available	5
			Normal	7
	Gastric Carcinoma	18	Gastric carcinoma	12
			Prepyloric ulcer	1
			Irregular filling of stomach	1
			Normal	1
			Not available	3
	Duodenal Ulcer	21	Duodenal Ulcer	3
			Cascade	1
			Pyloric Stenosis	1
			Normal	4
			Unsatisfactory	1
Not available	11			
	Gastritis	6	Gastritis with hiatus hernia	1
			Gastric Carcinoma	1
			Duodenal Ulcer	1
			Normal	2
			Not available	1
	Erosive Gastritis	5	Not available	4
			Duodenal diverticulum	1
	Duodenitis	1	Duodenitis	1
Normal Stomach (8)	Normal	5	Normal	2
			Narrowing of stomach	1
			Hiatus hernia	1
			Not available	1
	Non-ulcer dyspepsia	54	Normal	19
			Not available	25
			Duodenal Ulcer	1
			Hiatus hernia	1
			Hypertrophic gastritis	2
			Gastric Ulcer	3
			Cascade	1
			Pyloric stenosis	1
			Unsatisfactory	1
			Anaemia cause	1
G. I. bleeding cause	5	Normal	1	
		Not available	4	
Normal Stomach (7) (with epigastric mass)	Carcinoma stomach	5	Normal	1
			Gastric carcinoma	3
			Pressure effect Lesser curvature	1
Reticulosis	1	Gastric carcinoma	1	
Carcinoma head of pancreas	1	Widening of duodenal loop and pressure effect on greater curvature	1	

tic yield (Eastwood 1977) but does this lead to decreased morbidity and mortality? Carefully controlled trials will be needed to determine whether prompt endoscopy in one group confers any therapeutic advantage over the one in which endoscopy is withheld (Morrissey et al., 1967; Eastwood, 1977).

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