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TO ASSESS THE CORRELATION BETWEEN CLINICAL DIAGNOSIS OF GASTROINTESTINAL DISORDERS AND HISTOPATHOLOGICAL FINDINGS AT AIMS, DEWAS

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Abstract

Background & Method: The study includes 150 patients suffering from various gastrointestinal disorders whose endoscopic biopsy material was sent for histopathological examination in the Department of Pathology, Material is provided by patients of various GI disorders, attending both outdoor and indoor patients were included of Amaltas Institute of Medical Science, Dewas M.P.

Result: Of the total 55 (36.6 %) esophageal biopsies 34 (32.2 %) are of male patient while 21 (20 %) of female patients. Of the total 26 (17.5 %) gastric biopsies 20 (19 %) are from male and 06 (13.3 %) from female. 21 (20%) of the total 22 (14.6%) small intestinal biopsies were from male patients while 01 (2.4 %) were from female patients. 30 (28.8 %) of the total 47 (31.3 %) large intestinal biopsies are from male patients and the rest 17 (37.7 %) are from female. Out of the total 72 cases showing malignant features on endoscopy 54 turned out to be malignant. 08 cases show dysplastic features and 06 cases are diagnosed as non malignant. 46 of the cases out of 50 cases showing non malignant features on endoscopy are diagnosed as non malignant on histopathology and 04 cases remained undiagnosed. Out of the total 30 biopsies not showing any definite features on endoscopy 02 cases turned out to be malignant and 02 showed dysplastic changes. 00 cases showing non malignant features on endoscopy turned out to be malignant.

Conclusion: Maximum number of biopsies received were from esophagus and male : female ratio is 2:1. Maximum number of biopsies were from the esophagus (36.6%). Overall maximum number of biopsies turned out to be malignant (45.3%). Among the benign lesions maximum are of enteritis. On endoscopy, 72 cases were suspected malignant, whereas on histopathology, 54 cases were confirmed to be malignant.

Keywords: gastrointestinal, diagnosis, histopathological & clinical.
Study Designed: Observational Study.

Introduction

An endoscope utilizes two fiber optic lines. A "light fiber" conveys light into the body cavity and an "picture fiber" conveys the picture of the body depression back to the doctor's review lens[1]. There is additionally a different port to take into consideration organization of medications, attractions, and water system. This port may likewise be utilized to present little collapsing instruments like forceps, scissors, brushes, catches and crates for tissue extraction (evacuation), examining, or other indicative and helpful work[2]. In view of the piece of endoscope inside the body the endoscope can be inflexible or adaptable.

In the mid 1900s, the main endeavors to see inside the body with lit telescopes were made. These underlying gadgets were regularly completely unbending. During the 1930s, semi-adaptable endoscopes called gastroscopes were developed[3]. Fiber-optic endoscopy was spearheaded by South African-conceived doctor Basil Hirschowitz at the University of Michigan in 1957.

Colonoscopy assessment of within the colon and digestive organ to distinguish polyps, tumors, ulceration, irritation, colitis diverticula, Chrohn's illness, and revelation and evacuation of unfamiliar bodies[4].

The mucosa is made out of non-keratinizing separated squamous epithelium overlying lamina propria. The basal layer of the epithelium may contain a few melanocytes, argyrophilic cells and langerhan's cells[5]. There is abrupt change from separated squamous epithelium to mucin discharging columnar epithelium for about 0.5-1.5 cm at the lower end of throat called as the junctional mucosa.

Material & Method

The study includes 150 patients suffering from various gastrointestinal disorders whose endoscopic biopsy material was sent for histopathological examination in the Department of Pathology, Material is provided by patients of various GI disorders, attending both outdoor and indoor patients were included of Amaltas Institute of Medical Science, Dewas M.P. from May 2019 to June 2020.

Cases studied and analyzed in detail histopathologically & clinical information was available is used in the observation. Tissue received were fixed in 10% formal saline for 24 hours and processed according to Culing (1963). Formalin fixed tissue were processed in the tissue processing machine (Histokinate) or hand processing may be done in following manner

Inclusion Criteria

Patient of all age groups in whom endoscopic biopsy was performed for gastrointestinal disorder were included.

Results

Table 1: Sex Distribution of Cases

Site	Male		Female		Total	
	No.	%	No.	%	No.	%
Esophagus	34	32.2	21	46.6	55	36.6
Stomach	20	19	06	13.3	26	17.5
Small intestine	21	20	01	2.4	22	14.6
Large intestine	30	28.8	17	37.7	47	31.3
Total	105	70	45	30	150	100

Of the total 55 (36.6 %) esophageal biopsies 34 (32.2 %) are of male patient while 21 (20 %) of female patients.

Of the total 26 (17.5 %) gastric biopsies 20 (19 %) are from male and 06 (13.3 %) from female.

21 (20%) of the total 22 (14.6%) small intestinal biopsies were from male patients while 01 (2.4 %) were from female patients.

30 (28.8 %) of the total 47 (31.3 %) large intestinal biopsies are from male patients and the rest 17 (37.7 %) are from female.

Table 2: Spectrum of Total Biopsies

Diagnosis on histopathology	No. of Biopsies	% of total biopsies
Inflammatory	47	31.3
Benign	22	14.6
Dysplastic	05	3.3
Malignant	68	45.3
Undiagnosed	08	5.5
Total	150	100

Thus overall 47 cases are diagnosed as inflammatory 22 as benign 05 show dysplastic changes 68 were malignant and 08 remained undiagnosed.

Table 3: Correlation of Endoscopic and Histopathological diagnosis

Endoscopic diagnosis	No	Undiagnosed cases	Hisopathologically benign/inflammatory	Hisopathologically Dysplastic	Hisopathologically Malignant
			No	No	No
Malignant	72	04	06	08	54
Non malignant	50	04	46	00	00
indefinite benign/malignant	20	01	15	02	02
normal (no pathology)	08	00	08	-	-

Out of the total 72 cases showing malignant features on endoscopy 54 turned out to be malignant. 08 cases show dysplastic features and 06 cases are diagnosed as non malignant. 46 of the cases out of 50 cases showing non malignant features on endoscopy are diagnosed as non malignant on histopathology and 04 cases remained undiagnosed. Out of the total 30 biopsies not showing any definite features on endoscopy 02 cases turned out to be malignant and 02 showed dysplastic changes. 00 cases showing non malignant features on endoscopy turned out to be malignant.

Discussion

In this investigation we found that antrum was the most well-known site of preference, no site-explicit change was noted and guys kept on being all the more normally influenced of the two genders. Gastric disease was essentially higher over the age of 40 years[6].

In the current examination 24 (77.4%) of the all out 31 little intestinal biopsies are analyzed as provocative, 3 (9.6) as amiable and threatening each. Agony, loose bowels and spewing are the most widely recognized clinical highlights of different intestinal disorders[7]. Most basic site for both provocative and threatening issue in small digestive tract is duodenum this is because of the way that it is maximally presented to food substance aggravations just as the solid corrosive from the stomach. In the duodenum most extreme number of biopsies analyzed as incendiary or dangerous are from the second piece of the duodenum[8].

03 instances of celiac infection based on clinical highlights and histopathological assessment were analyzed. All are situated in duodenum and the mean age at the hour of analysis is 26.6 years. All are male.

The lone other examination from India about the predominance of celiac sickness was in Punjab, A sum of 4347 younger students (1967 young ladies, 2380 young men, age range 3-17 years) were evaluated for celiac infection. Out of these, 198 presumed youngsters were recognized for additional evaluation[9]. 21 kids tried positive for hostile to tTG. Seventeen of these 21 kids consented to go through biopsy; of these, 14 had histological changes predictable with celiac illness and all these 14 youngsters had clinical reaction to gluten limitation. Three kids with high enemy of tTG had typical mucosa on duodenal biopsy and were not named as being in the celiac sickness gathering. In the last investigation the sickness pervasiveness was one of every 310 children[10].

Malignancies are undeniably more uncommon in small digestive tract when contrasted with internal organ. In small digestive tract almost 10 % of the biopsies are discovered to

be harmful while in the internal organ almost 30 % are dangerous.

Conclusion

Maximum numbers of biopsies received were from esophagus and male: female ratio is 2:1. Maximum numbers of biopsies were from the esophagus (36.6%). Overall maximum number of biopsies turned out to be malignant (45.3%). Among the benign lesions maximum are of enteritis. On endoscopy, 72 cases were suspected malignant, whereas on histopathology, 54 cases were confirmed to be malignant.

References

1. Goyal R, Sivarao D. Functional anatomy and physiology of swallowing and esophageal motility. In: Catell OD, Richter JE, eds. The Esophagus, 3rd ed. Philadelphia: Lippincott Williams & Wilkins, 1999:24–26.
2. Fass R. Sensory testing of the esophagus. J Clin Gastroenterol 2004;38(8):628–641.
3. Aziz Q, Thompson DG. Brain-gut axis in health and disease. Gastroenterology 1998;114(3):559–578.
4. Fu M, et al. Embryonic development of the ganglion plexuses and the concentric layer structure of human gut: a topographical study. Anat Embryol (Berl) 2004;208(1):33–41.
5. Newman CJ, et al. Interstitial cells of Cajal are normally distributed in both ganglionated and aganglionic bowel in Hirschsprung's disease. Pediatr Surg Int 2003;19(9–10):662–668.
6. Greenson MC, et al: Clinical utility of serodiagnostic testing in suspected pediatric inflammatory bowel disease. Am J Gastroenterol 96:758, 2001.
7. Greenson Jk: Dysplasia in inflammatory bowel disease. Semin Diagn Pathol 2002: 19:31
8. Eaden JA, Abrams KR, Mayberry JF: the risk of colorectal cancer in ulcerative colitis: a meta analysis. Gut 48:526, 2001.
9. Burgat LJ: Colorectal polyps and other precursor lesions. Need for an expanded view. Gastroentrol Clin North Am. 31:959, 2002.
10. Jemal A, Et al: Cancer statistics, 2002. CA Cancer J Clin 52:23, 2002. Int J Cancer. 2002 Jun 20;99(6):860-8.