



A STUDY ON CLINICOPATHOLOGICAL PROFILE OF GASTRIC BIOPSIES IN JLN MCH, BHAGALPUR

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ABSTRACT Aim: The aim of the study is to find the possible association and cause of lesion in gastric mucosal biopsies. Proper diagnosis of gastric disorders depends on the histopathological confirmation and is one of the basis for planning proper treatment. Methods: In this study, 100 biopsies were taken by endoscopy. The study was done between January 2016 to December 2016 in department of pathology, JLN MCH, Bhagalpur. Thorough histo pathological analysis was done with H & E stained slides and special stains. All age group were involved. Both sexes were involved in the study. Results: The study showed that in 100 biopsies, 14 were malignant, 45 were ulcer, 33 were gastritis and 08 were H. pylori Induced gastritis. Males were more affected than females with ratio 2:1. Our study showed a poor correlation between endoscopic and histopathological evidence of inflammation in the stomach. Majority of carcinoma cases showed ulcerating fungating growth followed by ulceroproliferative growth. Average age of presentation of malignancy was 55years. Most common presentation was dysphagia. Most common carcinoma was adenocarcinoma of stomach. Commonest site of biopsy was around lesser curvature. Conclusion- It was shown in this study gastric cancer incidence have increased a bit. Most common cancer was adenocarcinoma. Endoscopy is incomplete without biopsy and histopathology is the gold standard for the diagnosis of endoscopically detected lesions.

KEYWORDS : Biopsies, Endoscopy, histopathology, adenocarcinoma, ulcer, gastritis

Introduction-

Gastrointestinal endoscopy and the acquisition of tissue samples are essential for the diagnosis and treatment of various diseases of the digestive system. Gastrointestinal (GI) endoscopy is defined as the direct visualization of the digestive tract, with or without therapy. Endoscopic technology has rapidly advanced over the past 40 years and has become an integral part of clinical gastroenterology. The utilization of endoscopy for both diagnostic evaluation and screening has markedly increased over the last two decades. Many innovations have expanded the indications for endoscopy. Successful endoscopy relies upon the ability to recognize abnormalities and diagnose disease. It is imperative for the endoscopist to detect GI lesions in its early stage to ensure that the patient can receive less invasive treatment and have better prognosis. To make a correct diagnosis of early neoplasm in the GI tract, we first need to detect any lesions with subtle morphologic change.

Indications for upper endoscopy Dyspepsia associated with alarm symptoms at any age. New onset dyspepsia in a patient ≥ 50 . Dysphagia or odynophagia. Symptoms of GERD that persist or recur despite appropriate therapy. Persistent vomiting of unknown cause. Diseases in which the presence of upper GI pathology may affect planned management, e.g. decision to anticoagulate. Confirmation of radiological abnormalities. Suspected neoplasia. Assessment and treatment of GI bleeding (acute or chronic). Sampling of tissue or fluid. To document or treat esophageal varices. Histopathological study of biopsy specimens are used to confirm endoscopic diagnosis in suspected malignancy or to rule out endoscopically benign appearing lesion. The endoscopic biopsies are performed not only for the diagnosis of the disease but also for monitoring the course, determining the extent of a disease, as responses to therapy and for the early detection of complications. The aim of this study is to correlate the histopathological pattern of endoscopic biopsy with distribution of gastric lesions.

Material and Methods

In this study, 100 biopsies were taken by endoscopy. The study was done between January 2016 to December 2016 in department of pathology, JLN MCH, Bhagalpur. Thorough histo pathological analysis was done with H & E stained slides and special stains. All age group were involved. Both sexes were involved in the study.

Inclusion Criteria: All endoscopic biopsies of the gastric region.

Exclusion Criteria: All lesions of the mouth and pharynx and oesophagus.

Procedure- Endoscopies were performed in department of surgery, JLN MCH, Bhagalpur, using upper GI endoscope. Biopsies were taken from the suspected malignant lesions. The biopsy specimen was kept in 10% formalin for fixation. Five micron thick sections were cut perpendicular to this surface and four to five sections were prepared on each slide. Each section was stained with H and E and studied microscopically. Adequacy of biopsy was assessed. An attempt was made to diagnose the lesion on gross visualisation during endoscopy and to correlate them histopathologically. Special stains were done whenever required

Results

The study showed that in 100 biopsies, 14 were malignant, 45 were ulcer, 33 were gastritis and 08 were H. pylori Induced gastritis. Diagnosis Number

Diagnosis	Number
Malignant	14
Ulcer	45
Gastritis	33
H. pylori Induced gastritis	08

Males were more affected than females with ratio 2:1.

Sex	Number of patients
Males	66
Females	34

Our study showed a poor correlation between endoscopic and histopathological evidence of inflammation in the stomach. Majority of carcinoma cases showed ulcerofungating growth followed by ulceroproliferative growth.

Endoscopic findings	Type of growth
Ulcerating	06
Fungating	05
Ulceroproliferative	12
Nodular ulceration	03

Average age of presentation of malignancy was 55years. Most common presentation was dysphagia. Most common carcinoma was adenocarcinoma of stomach. Commonest site of biopsy was around lesser curvature.

DISCUSSION:

Endoscopy is recommended as the first line investigation during the workup of a patient with GI symptoms. Endoscopic examination is essential to differentiate between organic and functional causes while histopathological examination of a biopsy can determine the exact diagnosis of lesion. The advantage of combining endoscopy with histopathological study of biopsy has been emphasized by various authors in diagnostic grounds. Its importance in diagnosing GI tract lesion has been established. Findings were similar to the studies conducted by Hecker et al, Sharma S. et al. In our study the average age group affected was 55 years which was similar with other studies. Incidence of carcinoma increased with increase of age similar to the study done by Sharma S et al. In our study we found 14 were malignant, 45 were ulcer, 33 were gastritis and 08 were H. pylori Induced gastritis. Abdel M et al in a study of 92 cases observed that, according to endoscopic findings 15 (16.3%) cases had normal mucosa, 26 (28.2%) cases had gastritis, 43 (46.7%) cases had duodenal ulcer and 8 (8.7%) cases had peptic ulcer. Clinical profile showed majority of patients presented with vague symptoms of dyspepsia, abdominal pain, and heartburn. This finding is supported by Koh and Wang, Sigon et al., and Chattopadhyay et al., who found that pain abdomen was commonest symptom (84%) in gastric cancer patients rather than obvious mass

Conclusion

It was shown in this study gastric cancer incidence have increased a bit. Most common cancer was adenocarcinoma. Endoscopy is incomplete without biopsy and histopathology is the gold standard for the diagnosis of endoscopically detected lesions.

References

1. Eisen, G. M., Baron, T. H., Dominitz, J. A., Faigel, D. O., Goldstein, J. L., Johanson, J. F., Mallory, J. S., Raddawi, H. M., Vargo, J. J. 2nd, Waring, J. P., Fanelli, R. D., & Wheeler-Harborough, J. (2002). American Society for Gastrointestinal Endoscopy. Complications of upper GI endoscopy. *Gastrointest Endosc. Jun*, (55(7), 784-93)
2. Croese, J., Fairley, S. K., Masson, J. W., Chong, A. K., Whitaker, D. A., Kanowski, P. A., & Walker, N. I. (2003). Clinical and endoscopic features of eosinophilic esophagitis in adults. *Gastrointest Endosc. Oct*, (58(4), 516-22)
3. Graham, D. Y., Schwartz, J. T., Cain, G. D., & Gyorkey, F. (1982). Prospective evaluation of biopsy number in the diagnosis of esophageal and gastric carcinoma. *Gastroenterology, Feb*, (82(2), 228-31)
4. Raao DN, Desai PB, Balasubramaniam G. Epidemiological observation of cancer of the esophagus- a review of Indian studies. *Indian J of Cancer* (1996;33(2):55-75)
5. Marson BC, Dawon IMP. IN: *Gastrointestinal pathology*. 2nd edn. London: Black Well scientific publications (1998:148-51)
6. Dooley CP. Background and historical considerations of *Helicobacter pylori*. *Gastroenterology Clinics of North America* (1993;22(1):1-4)
7. Blaser MJ. *Helicobacter pylori* and the pathogenesis of gastroduodenal inflammation. *J of Inf Diseases* (1990;161(4):626-633)
8. Sharma S, Makaju R, Dhakal R, et al. Correlation between endoscopic and histopathological findings in gastric lesions. *Kathmandu Univ Med J* (2015;51(3):216-219)
9. Hecker R, Fitch R, Rowland R. The value of endoscopy and biopsy in the diagnosis of gastric carcinoma. *Med J Aust* (1975;2(12):472-474)
10. Gaganov LE, Kazantseva IA, Gurevich LE, Korsakova NA. Variants of gastric carcinomas according to immunohistochemical mucins and CD10 expressions. *Arkh Patol* (2012;74:3-5)