

A CLINICO-PATHOLOGICAL CORRELATION OF GASTRIC MALIGNANCY IN ENDOSCOPIC BIOPSY

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Abstract

Background: The present study was undertaken to evaluate the clinical presentation, risk factors and the pathological features of gastric carcinoma patients diagnosed and managed at our tertiary care hospital. **Materials and Methods:** The present study is a prospective study done for a period of 1 year from October 2020 to July 2021 conducted in Department of Pathology JLNMC, Bhagalpur, Bihar, India. All cases diagnosed as benign cases of gastric lesions were excluded from the study. A total of 10 cases diagnosed as gastric malignancy were taken for the study. **Result:** In this study, a total of 10 cases were taken. Out of these 10 cases, majority of the cases were males 6 (60%) and 4 cases were females (40%). Maximum number of malignancy was encountered in the age group of 51-60 years, 6 cases (60%). The youngest age of malignancy diagnosed was at 43 years and oldest age was 80 years old. **Conclusion:** Gastric carcinoma was more common in 51-60 years, mostly among lower socioeconomic groups. The most common histological type of gastric carcinoma was Intestinal type of gastric adenocarcinoma.

INTRODUCTION

Gastric adenocarcinoma is common worldwide and also in India. According to GLOBOCAN 2018, gastric cancer is the 5th most common cancer worldwide and is 3rd most common cause of cancer related deaths.^[1] The incidence of gastric cancer varies in different parts of the world and among various ethnic groups. It remains the fifth most common cancer among males and seventh most common cancer among females in India.^[2] Approximately 90% of gastric cancers are adenocarcinomas, and rest 10% are lymphoma, leiomyosarcoma etc. Diagnosis of gastric malignancy is based on clinical, biochemical, radiological and pathological parameters.^[3-5] Endoscopic biopsy examination followed by histopathological assessment is the current gold standard procedure for diagnosing patients with symptoms of upper gastrointestinal tract.^[6-9] Thus, the role of upper gastrointestinal mucosal biopsies for the histopathological identification of the earlier stages of various gastrointestinal tumours, helps in proper management.^[7,10-13] The present study was undertaken to evaluate the clinical presentation, risk factors and the pathological features of gastric carcinoma patients diagnosed and managed at our tertiary care hospital.^[14,15]

MATERIALS AND METHODS

The present study is a prospective study done for a period of 1 years from October 2020 to July 2021 conducted in Department of Pathology JLNMC, Bhagalpur, Bihar, India. All cases diagnosed as benign cases of gastric lesions were excluded from the study. A total of 10 cases diagnosed as gastric malignancy were taken for the study.

RESULTS

In this study, a total of 10 cases were taken. Out of these 10 cases, majority of the cases were males 6 (60%) and 4 cases were females (40%). Maximum number of malignancy was encountered in the age group of 51-60 years, 6 cases (60%). The youngest age of malignancy diagnosed was at 43 years and oldest age was 80 years old.

The Peak age incidence for gastric cancer was found in 51-60 years (60%). [Table 1]

Out of 22 cases, 6 cases were males (60%), 4 were females (40%). The male: female ratio was 1.5:1. [Table 2]

[Table 3] shows that, out of 10 cases studied, commonest site of presentation of the gastric malignancies was the Antrum/Prepyloric (60%), followed by the body (20%).

[Table 4] shows the most common presentation was abdominal pain which is seen in maximum number of cases (40%) followed by vomiting (20%). [Table 5] shows that most of the cases were diagnosed as Poorly differentiated adenocarcinoma

(70%) followed by Moderately differentiated adenocarcinoma (30%). The most common histopathological type of the gastric adenocarcinoma was intestinal type (68%) followed by diffuse type (22%).

Table 1: Age Incidence.

| S. No | Age in years | No of cases (n=10) | Percentage |
|-------|--------------|--------------------|------------|
| 1 | 41-50 | 1 | 10% |
| 2 | 51-60 | 6 | 60% |
| 3 | 61-70 | 2 | 20% |
| 4 | 71-80 | 1 | 10% |

Table 2: Correlation between Sexes of Patients with Gastric Malignancy

| S. No | Sex | Number | Percentage |
|-------|--------|--------|------------|
| 1 | Male | 6 | 60% |
| 2 | Female | 4 | 40% |

Table 3: Sites of Endoscopic Biopsies

| S. No | Regions | No of cases | Percentage |
|-------|-------------------|-------------|------------|
| 1 | Antrum/Prepyloric | 6 | 60% |
| 2 | Body | 2 | 20% |
| 3 | Cardiac | 1 | 10% |
| 4 | Fundus | 1 | 10% |

Table 4: Symptoms of the Patient

| S. No | Symptoms | No of affected | Percentage |
|-------|----------------|----------------|------------|
| 1 | Abdominal pain | 4 | 40% |
| 2 | Vomiting | 2 | 20% |
| 3 | Weight loss | 2 | 20% |
| 4 | Hematemesis | 1 | 10% |
| 5 | Malena | 1 | 10% |

Table 5: Histopathological Diagnosis

| S. No | Histological Diagnosis | No of cases | Percentage |
|-------|--|-------------|------------|
| 1 | Poorly Differentiated adenocarcinoma | 7 | 70% |
| 2 | Moderately differentiated adenocarcinoma | 3 | 30% |

Table 6: Age Incidence

| S. No | Studies | Percentage |
|-------|---------------------------------|------------|
| 1 | Our Present study | |
| 2 | Debashis Chakarbarthy et al.(5) | 36.5% |

Table 7: Socioeconomic Status of Gastric Malignancy in Different Studies

| S. No | Studies | Percentage |
|-------|---------------------|------------|
| 1 | Our Present study | 70% |
| 2 | Leenadevi et al.(9) | 85.5% |
| 3 | Swaroop et al.(10) | 90% |

Table 8: Male: Female ratio in different other studies

| S. No | Studies | Studies |
|-------|-----------------------|---------|
| 1 | Our Present study | 1.5:1 |
| 2 | P R Howley et al.(11) | 2.2:1 |
| 3 | Lundh G et al.(12) | 1.8:1 |

Table 9: Symptoms

| S. No | Studies | Percentage |
|-------|------------------------------|------------|
| 1 | Our Present study | 40% |
| 2 | Arun Kumar Barad et al. (8) | 61.4% |
| 3 | Hajiani Eskandar et al. (13) | 50% |

Table 10: Site of presentation of Gastric malignancies in different studies

| S. No | Studies | Percentage |
|-------|---------------------------------|------------|
| 1 | Our Present study | 60% |
| 2 | Debashis Chakarbarthy et al (5) | 65.3% |
| 3 | Pwj Houghton et al (14) | 48.6% |

Table 11: Lauren's Classification of Gastric Adenocarcinoma in different studies

| S. No | Studies | Intestinal type | Diffuse type |
|-------|--------------------------------|-----------------|--------------|
| 1 | Our study | 68% | 22% |
| 2 | Debashis Chakarbarthy et al(5) | 64.3% | 35.7% |
| 3 | Jose et al(15) | 86% | 14% |

DISCUSSION

In our present two years study, we analyse certain data regarding to the basic clinical and pathological profile such as age, sex ratio, sites of biopsies, symptoms and histopathological diagnosis.

Socioeconomic Status of Gastric Malignancy in Different Studies: A total of 7 cases were from low socioeconomic status. In some other studies, socioeconomic status shows same trends.

Sex Incidence: In the present study out of total 10 cases 6 were male and 4 were female. There is a male preponderance of gastric adenocarcinoma through the world. We have found male: female ratio of 1.5:1, which is at par with other studies.

Symptoms: The common presenting symptoms of gastric carcinoma was abdominal pain. A comparative analysis is given under table below.

Site of Presentation: The commonest site of presentation of gastric malignancy is pylorus and antrum followed by body, fundus and cardiac end were least involved. A comparative analysis is given in [Table 10].

Lauren's Classification of Gastric Adenocarcinoma in Different Studies: In our study, Lauren's intestinal type of adenocarcinoma was 77.3% and diffuse type was 22.7% which are almost similar to other studies given in [Table 11].

CONCLUSION

In conclusion, Gastric carcinoma was more common in 51-60 years, mostly among lower socioeconomic groups. The most common histological type of gastric carcinoma was Intestinal type of gastric adenocarcinoma. Environmental and dietary factors contribute to the development of gastric cancers. Effective screening measures and early diagnosis should be done to reduce the morbidity and mortality of the disease. Endoscopy is widely regarded as the most useful diagnostic test and a definitive diagnosis of gastric disorders rests on the histopathological confirmation and is the basis for planning proper management.

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