

Study on Gastric Carcinoma and Its Analysis on Presentation in Tertiary Care Hospital

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ABSTRACT

Background: Carcinoma of stomach is the second most common cancer in developing countries after lung in males. Chile, Costa Rica, Japan, China and former Soviet Union has the highest reported death rate.

Subjects and Methods: The present study is a Retrospective study and the study period was between October 2015 to September 2018. The age as an inclusion criterion was 30 years above reporting with histopathological diagnosis of gastric carcinoma to determine the age at presentation, stage at presentation, gender distribution, type of surgery done and the common histopathological diagnosis.

Results: Highest incidence of 27.6% in the age group 40-49 years, 23.7% in 30-39 years, 22.4% in 50-59 years, and 18.4% in 60-69 years and 9.2% in >70 years, beyond 70 years the incidence decreases.

Conclusion: To conclude the present study showed a high incidence in the age group 40 to 49 yrs and the most common affected gender was male. Pylorus and Pyloric antrum were

the common site of presentation. Most of the patient around 59.2% presented in a locally advanced stage.

Keywords: Gastric Carcinoma, Stage of Disease & Abdominal Pain.

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INTRODUCTION

Cancer is a big burden of modern society. It is the second most common disease after cardiovascular disorders for maximum deaths in the world.¹ Stomach carcinoma is the second most common cancer in developing countries after lung in males. Highest death rate is reported in Chile, Costa Rica, Japan, China and formerly Soviet Union. Median age of diagnosis was 65 years. Male: female ratio was 1.5:1.3.² The possible risk factors are low fruit and vegetables, high salt intake, salted fish and smoked meats, *Helicobacter pylori*, *hypochlorhydria*, polyps, genetic alteration, (P53 mutation, microsatellite instability, E cadherin gene), previous radiation, gastrectomy and pernicious anaemia.^{3,4} Gastric carcinoma has a major cancer mortality, worldwide. It is a curable disease provided that it is detected early, but unfortunately gastric carcinoma is often diagnosed at an advanced stage, as early gastric malignancy is asymptomatic or causes only non-specific symptoms. Common signs and symptoms of advanced stage include fatigue, weight loss, bleeding, melena, anorexia, abdominal pain and obstruction.^{5,6} Gastric cancer is an aggressive malignancy with a dismal outcome. Gastric cancer is the fourth

most common cancer in the world behind lung, breast, and colorectal cancers and the second leading cause of cancer death worldwide after lung cancer⁷, accounting for 736,000 deaths (9.7% of the total). Currently, gastric cancer is more common in Asia than in the United State of America (USA) or Europe. Notably, 42% of cases occur in China alone. The incidence in India is however found to be decreasing. The number of new gastric cancer cases is approximately 34,000 per annum, with a male predominance, although it remains as the second most common cause of cancer death in our population.⁸ There are very few studies looking at the clinical profile and outcome from the sub-continent. Our aim was to evaluate the demographic profile, presentation and outcomes of the gastric cancer patients.

SUBJECTS AND METHODS

This is a retrospective; cross-sectional study was conducted in the Department of Surgical Oncology of a tertiary care hospital. Seventy-six patients who were diagnosed of gastric adenocarcinoma (histopathologically with immunohisto-chemistry)

during the period from October 2015 to September 2018 were included in the study.

The objectives of this study are to correlate the association of outcomes of gastric carcinoma and its age at presentation, the gender distribution, commonest site of presentation and the procedure/surgeries done and the histopathology of the stomach cancer.

Inclusion Criteria: Male and female patients above 31 years of age reporting to the hospital with histopathological diagnosis of gastric carcinoma. A detailed history of physical examination, general examination and metastatic work up was done for all the patients with the diagnosis of gastric carcinoma.

Exclusion Criteria: Patients who were presented not underwent full course of treatment during admission.

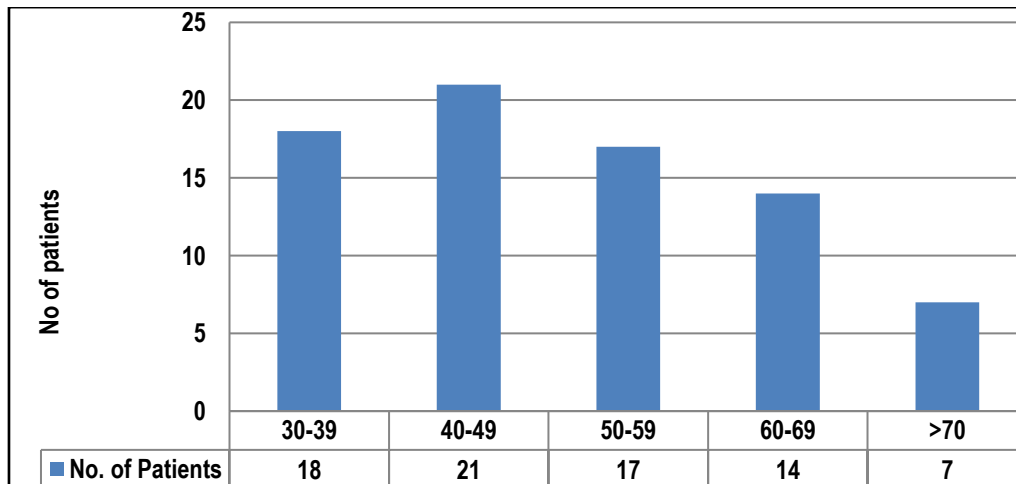


Fig.1: Shows the age group distribution:

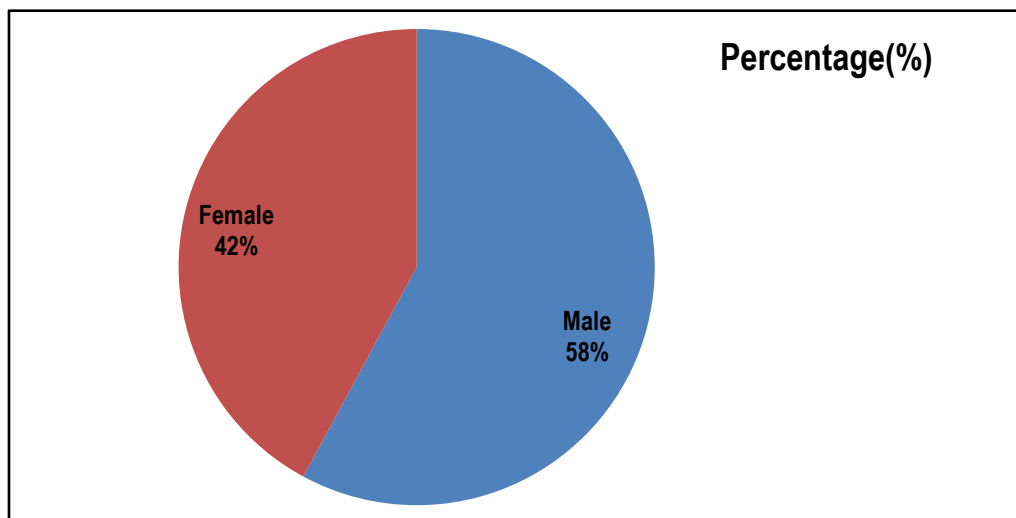


Fig.2: Shows the gender distribution.

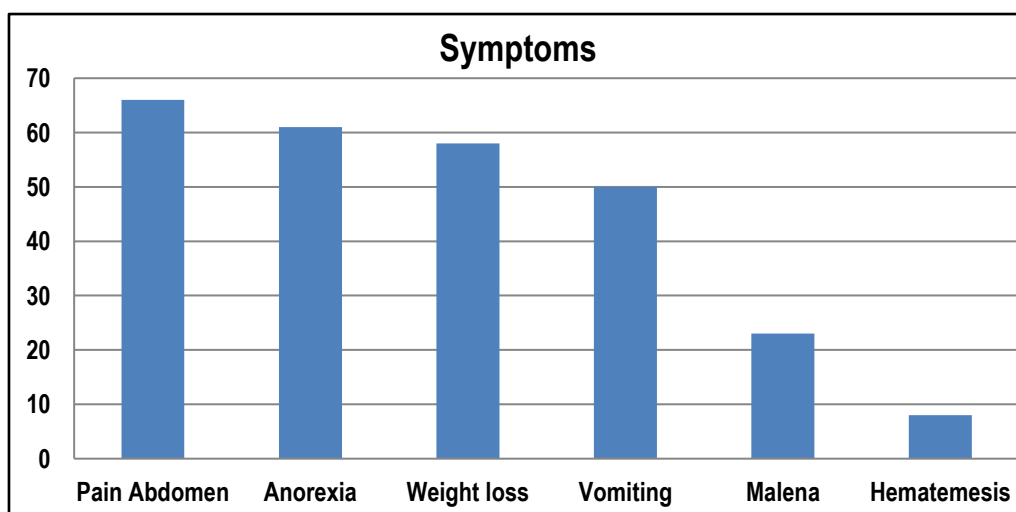


Fig.3: Shows the Symptoms presentation.

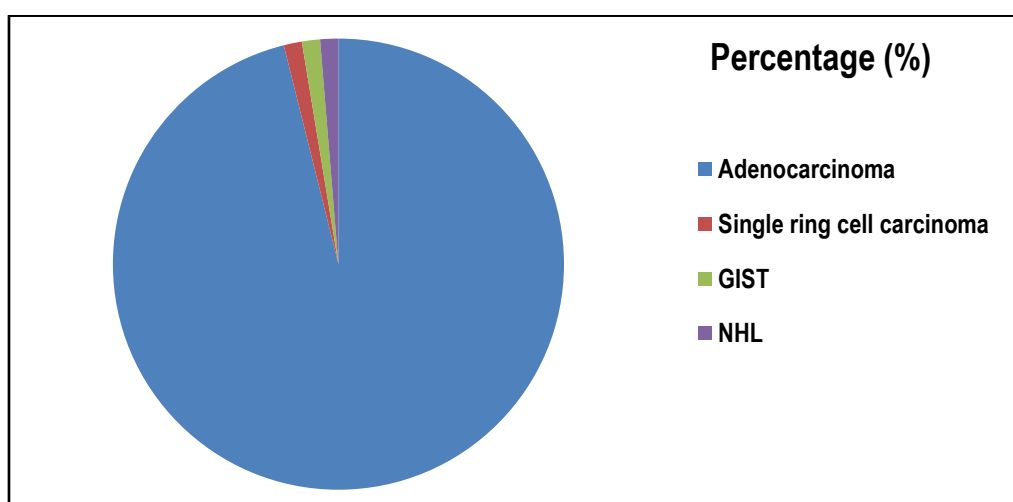


Fig.4: Shows the Pathology presentation.

Table 1: Stage of presentation:

Stage	No. of Patients n (%)
Stage IIA & IIB	23 (30.3%)
Stage IIIA, IIIB, IIIC	45 (59.2%)
Stage IV	6 (7.9%)
Gist stage II	1 (1.3%)
Lymphoma stage I	1 (1.3%)

Table 2: Site of presentation

Site	No. of Patients n (%)
Pylorus and pyloric antrum	49 (64.5%)
Body	26 (34.2%)
OG Junction	1 (1.3%)

Table 3: Type of Surgery:

Surgery type	No. of Patients n (%)
Total Gastrectomy	37 (48.7%)
Distal/Sub Total Gastrectomy	28 (36.8%)
Palliative Gastro Jejunostomy	11 (14.5%)

RESULTS

The age wise distribution is shown in table 1 shows highest incidence of 27.6% in the age group 40-49 years, 23.7% in 30-39 years, 22.4% in 50-59 years, and 18.4% in 60-69 years and 9.2% in >70 years, beyond 70 years the incidence decreases. In this study the ratio is 1.4:1. Gender distribution is shown in table 2. Male and female distribution was 57.9% and 42.1% respectively. The common complaints during presentation were pain in the abdomen (86.8%), anorexia (80.3%), and weight loss (76.3%). As per the Indian statistics, patients present to the hospital mostly in locally advanced stage. Stage of the disease is the single most important prognostic factor. All the 76 cases of carcinoma stomach who presented to the surgery department with proven diagnosis of carcinoma stomach underwent laparotomy and appropriate surgeries were done depending on the stage and the site of presentation. The entire stage 4 patient group had liver metastasis.

As per Indian statistics the most common site of presentation was pylorus followed by body of stomach. In this study also the most common site of presentation was pylorus and pyloric antrum 64.5% followed by body of stomach 34.2% and OG junction 1.3%. Depending on the site and stage of presentation, appropriate surgery was performed. Total gastrectomy with anastomosis was done in 48.7% of patients which included one GIST. Distal/Subtotal gastrectomy with anastomosis was done in 36.8% of patients and palliative gastrojejunostomy was done in 14.5% patients, one patient with diffuse large B cell lymphoma was treated with appropriate chemotherapy.

In this study adenocarcinoma was found in 96.1% patients, 1.3% patients had GIST and 1.3% had diffuse large B cell lymphoma and 1.3% had signet ring cell carcinoma.

DISCUSSION

Seventy-three (96.1%) out of the total 76 patients with histologically proven gastric adenocarcinoma, were admitted for surgery. This study showed highest incidence of carcinoma stomach in the age group of 40-49 years. Male and female ratio was 1.4:1. Around 58% patient presented in the locally advanced stage III A, IIIB and IIIC and 7.9% with liver metastasis. As already mentioned, most of the patient present to the hospital in a late stage which was the most important prognostic factor.⁹ In this study the most common site of presentation was pylorus and pyloric antrum 64.5% followed by body of stomach 34.2% and 1.3% OG junction tumor. 75 out of 76 patients in this study underwent laparotomy. Total gastrectomy was done in 48.7% patient and subtotal gastrectomy with lymph node dissection was done in 36.8% of patient.¹⁰ Palliative gastrojejunostomy was done in 14.5% of patient. All the patient received appropriate adjuvant treatment. One patient who was diagnosed to have non-Hodgkin's lymphoma diffused large B cell lymphoma, received chemotherapy alone with CHOP regime. In this histopathological study 96.1% of patient had adenocarcinoma which is the most common histopathology. Other histologist was signet ring cell carcinoma 1.3%, GIST 1.3% and NHL 1.3%. The clinical features and prognosis of signet ring adenocarcinoma are different between early and advanced gastric cancer. Signet ring cell adenocarcinoma is a poor prognostic factor in advanced gastric cancer after curative resection.¹¹

Further studies are required to analyse the response and outcomes of our patients. One of the limitations of our study included a poor follow up due to which the disease-free survival and overall survival couldn't be calculated.

CONCLUSION

In conclusion, the present study showed a high incidence in the age group 40 to 49 years and the most common affected gender was male. Pylorus and Pyloric antrum were the common site of presentation. Most of the patient around 59.2% presented in a locally advanced stage. All the patient underwent laparotomy, total and subtotal gastrectomy were done according to the site of presentation. All the patient was followed up and chemotherapy was given accordingly. This study reported 1 NHL, 1 GIST and all others to be adenocarcinoma. Patients with symptoms of bloating dyspepsia and other abdominal symptoms should be investigated early to diagnose carcinoma stomach in early stages. Thus, early detection is the key to improve the survival of gastric cancer patient.

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