

Clinico-Pathological Profile of Gastric Cancer Patients Treated at Tertiary Care Cancer Hospital in Assam: Short Term Experience

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Abstract

Background: Gastric cancers are among the commonest cancers in developing countries including India. Majority of the patients present in late stages of disease with dismal outcomes.

Materials and Method: Medical records of patients undergoing surgery for gastric cancer during 2018 were retrospectively analyzed. Clinical and pathological parameters were recorded and analyzed.

Results: Total of 49 patients were retrospectively analyzed. Most of the patients had advanced disease at presentation with anaemia in 40/49 (81%) and Gastric outlet obstruction in 27/49 (55%). 70% of patients undergoing gastrectomy had node positive disease. There was a trend towards association between node positive disease and tumour thickness >15mm (p=0.024).

Conclusion: Majority of gastric cancer patients in North East India present in advanced stage with anaemia and gastric outlet obstruction. Tumour thickness >15mm can possibly predict regional lymph node metastasis in gastric cancer patients.

Keywords: Gastric cancers, retrospective analysis, gastrectomy, anaemia, gastric outlet obstruction, regional lymph node metastasis, tumour thickness

Introduction

In India it is the fifth most common cancer among males and the seventh most common cancer among females¹. The symptoms and sign of stomach cancer are often reported late when the disease is already in advanced stages and 5-year survival is less than 30% in developed countries and around 20% in developing countries^{1,2,3,4,5}. Henceforth, detection of malignancy is of utmost priority to facilitate early intervention in form of surgery and/or chemotherapy. Clinical examination, endoscopy, and histopathological examination have been

the cornerstone of investigation of gastric malignancy³. This short term pilot study was undertaken to analyse the clinical and pathological profile of gastric cancer patients in Assam.

OBJECTIVE: To study the Clinico-Pathological profile of gastric cancer patients presenting at State Cancer Institute, Gauhati Medical College.

MATERIALS AND METHOD: Medical records of 49 patients undergoing surgery for gastric cancer at our institute during 2018 were retrospectively analysed.

Inclusion Criteria: 1) All patients with biopsy proven adenocarcinoma stomach undergoing surgery at our institute during 2017 were included. **Exclusion:** 1) Patients with biopsy other than adenocarcinoma (GIST, Lymphoma, Sarcoma) 2) Patients with incomplete medical records. 3) Patients presenting after surgery at other institute were not included.

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All the clinical and pathological parameters were recorded and retrospectively analysed. Statistical analysis was done using student's t test, Pearson chi square test and Fischer's exact test. P value <0.05 was considered as statistically significant.

Results

Demographic profile: Mean age was 54.73±11.64 yrs (33-85 yrs). M:F ratio was 1.9:1. MC symptom was abdominal pain in 27/49 (55%) patients. 32/49 (65%) patients were addicted to tobacco in some form.

Table 1 (Demographic profile)

Age (Yrs) (n=49)	54.73±11.64 yrs (33-85 yrs)
Gender (n=49)	M:F:: 1.9:1
Tobacco addiction (n=49)	Addicted n=32 (65%) Not Addicted n=17 (35%)

Clinical Presentation:

Mean duration of symptoms was 3.68±2.77 months (1-12 Months). Most common symptoms were abdominal pain in 27/49 (55%), vomiting 17/49 (35%) and GI bleed (Haemetesis/Malena) in 9/49 (15%) patients respectively. Most common signs were anaemia 33/49 (67%), gastric outlet obstruction in 20/49 (41%) and palpable lump in 13/49 (18 %) patients respectively.

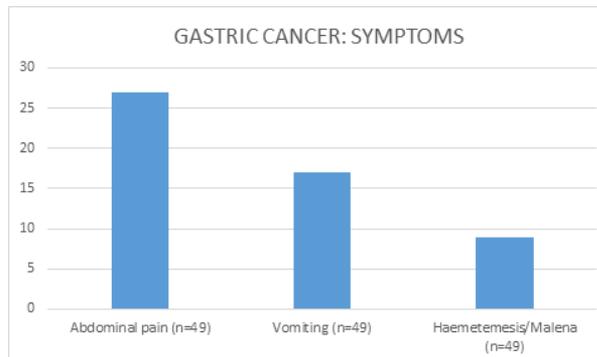


Figure 1

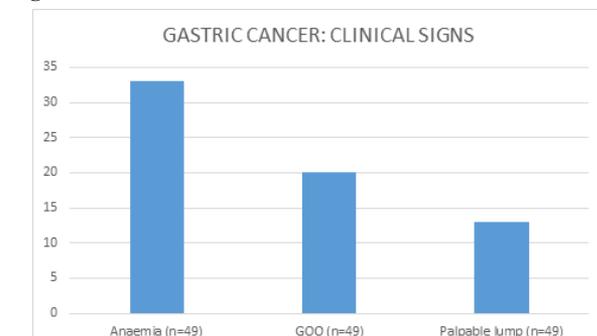


Figure 2

Out of all patients undergoing exploratory laparotomy, 30/49 (62%) underwent Radical D2 gastrectomy whereas 19/49 (38%) had palliative bypass. MC site was antropyloric region of stomach in 45/49 (91%) patients. Out of 30 patients undergoing Radical gastrectomy, 15/30 (50%) had node positive disease.

Pathological profile:

Majority of patients has poorly differentiated adenocarcinoma 20/38 (52%). Most common WHO type was tubular in 31/38 (81%) and poorly cohesive (signet ring) in 5/38 (13%) patients respectively. MC macroscopic type was ulcerative in 31/38 (81%) patients. Mean Tumour thickness was TT 18.66±6.94 mm (8-35 mm). Out of 20 patients undergoing Radical D2 gastrectomy, 16 (80%) were found to have regional lymph node involvement.

Table 2: (Pathological profile)

HPE Grade (n=49)	Well Diff n=13 (28%) Mod diff n=10 (18%) PDC n=26 (52%)
WHO type (n=49)	Tubular n=40 (82%) Poorly cohesive (Signet ring) n=7 (14%) Papillary n=1 (2%) Mucinous n=1 (2%)
Macroscopic appearance (n=49)	Ulcerative n= 40 (82%) Fungating n=4 (7%) Infiltrative n=4 (7%) Polypoidal n=2 (3%)
Tumour thickness (in mm)	16.4±5 mm
Nodal status (n=30)	Node positive n=15 (50%)

Univariate Analysis:

On applying Fischer's exact test, a significant association was found between Tumour thickness> 15mm with regional lymph node metastasis (p=0.024).

Table 3 (Association of Tumour thickness with Regional lymph node metastasis)

Tumour thickness	Nodal status
Tumour Thickness <15mm n=1/30	Node positive
negative n=11/30	Node
Tumour thickness ≥ 15mm n=14/30	Node positive
negative n=4/30	Node
p=0.024 (Fischer's exact test)	

Discussion

Mean age of patients in our study was 54.73 years and M:F ratio 1.9:1 which were comparable to studies done by Sumantary, Nandi and Barad et al^{2,3,4}. 65% of patients in our study addicted to tobacco. Throughout the world there is a male preponderance of the disease^{6,7,8}. This male preponderance of gastric cancer may be attributed to the high incidence of smoking among males as compared to female⁹. Most common site was antropyloric region of stomach (91%) and was comparable to other studies^{1,2,3,4,5}. Most common symptoms were abdominal pain and vomiting in 55% and 35% patients respectively. In study done by Kasim et al, epigastric pain was the most common symptom (87%) followed by weight loss and indigestion 72.5% and 69.6% respectively¹. Study done by Barad et al found abdominal pain in 61.4% and vomiting in 20.9% patients as common symptoms⁴. Higher incidence of anaemia and GOO in developing countries can be explained by delayed presentation of patients in advanced stage of disease.

Majority of patients had poorly differentiated carcinoma (52%). Ulcerative variety was found on grossing in 81% cases. Kassim et al and Samantaray et al found ulcerative variety in 73.9% and 73.1% patients respectively^{1,2}. Mean tumour thickness was 16.4±5 mm. 50% of patients had metastasis to regional lymph nodes on final histopathology specimens.

We also found a significant association between tumour thickness ≥ 15mm and incidence of regional lymph node metastasis (p=0.024). Sasagama et

al found male gender, age (>40 yrs), the depth of invasion, LVI, and tumour located in corpora or angle as independent risk factors for regional lymph node metastasis⁶. In particular, lymph node status has been established as one of the most important criteria for proper treatment strategy and prognosis of gastric cancer preoperatively^{10,11}. Lymph node (LN) status is the important prognostic factor regarding long-term survival in gastric cancer¹². Pretreatment knowledge of LN status may help in selecting patients who might benefit most from neoadjuvant chemotherapy¹³. This is especially important as tumour thickness can be easily evaluated using imaging modalities like CT scan and MRI.

Conclusions

- 1) Anaemia and Gastric outlet obstruction are the commonest presentations of gastric cancer in our population.
- 2) MC site of disease is antro-pyloric region of stomach.
- 3) Majority of patients undergoing gastrectomy had node positive disease probably due to advanced stage at presentation.
- 4) There is a significant association between TT≥15mm and probability of regional lymph node metastasis.

Conflict of interest: Nil

Ethical clearance: Taken

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