Research Article

CLINICAL CHARACTERSTICS AND TREATMENT PATTERN OF GASTRIC CANCER IN A CORPORATE HOSPITAL, KERALA

PR. Roshni*, Aiswarya Purushothaman, Remya Reghu and Meenu Vijayan

Department of Pharmacy Practice, Amrita School of pharmacy, Amrita Vishwavidhyapeetham University, AIMS Health Science Campus, Kochi, Kerala, Thiruvanthapuram, India.

ABSTRACT

Gastric cancer incidence and mortality have fallen drastically over last 50 years in most regions, but remains the second most common cancer worldwide. There is wide variation in the incidence of gastric cancer globally and also within India among the different racial or ethnic groups. In India, gastric cancer is the third most common cancer found and the second leading site of cancer occurrence worldwide. The present study was undertaken to determine the incidence of gastric cancer among patients, receiving treatment in department of Oncology, in a corporate Hospital. Both inpatients and outpatients were included in the study. The various carcinoid sites included in the study were oesophagus, stomach, small intestine, colon, rectum, anus, liver, gall bladder, and pancreas. Based on the carcinoid site distribution of GI cancer, Stomach cancers was the most frequent (24.18%), followed by liver (21.75%), rectum (18.32%), colon (11.79%) and oesophagus (11.29%),pancreas(8.36%),gall bladder (1.84%), small intestine (1.50%),anal (0.87%) malignancies. Males (73%) were more frequently affected than females(27%); Peak incidence was in the 61-70 age groups. Based on the stage of tumour, (23.34%) of gastric cancer were diagnosed at localised, (32.7%) at regional, (37.1%) at distantstage. Based on treatment pattern, (30.2%)of the patients had undergone Surgery, Radiotherapy(12.55%),Chemotherapy(19.74%), Surgery+ Radiotherapy(6.35%), Surgery+Chemotherapy (15.14%), Chemotherapy +Radiotherapy (9.87%), Surgery + Chemotherapy + Radiotherapy (11.38%).

Keywords: Gastric cancer, surgery, chemotherapy, radiotherapy.

INTRODUCTION

Gastric cancer is the most common cancer worldwide. It is the fourth most commonly diagnosed cancer and second most common cause of cancer related death worldwide.[1] The prognosis for gastric cancer depend on its stage; so, detection in the early stage of disease is important, when complete and curative removal is possible.[2,3] Diagnostic modalities like evolutionary endoscopy and positron emission tomography are utilized as screening tools for the gastric cancer. Early gastric cancer is being treated using minimally invasive methods such as endoscopic treatment and laparoscopic surgery, while in advanced cancer it is necessary to consider multimodality treatment including chemotherapy, radiotherapy, and surgery. Surgery must shows a good short-term outcome and must be safe, without decreasing curative potential, which is the aim of cancer treatment.[4,5] Various chemotherapeutic regimens also play a key role in treatment of gastric cancer and have yielded good therapeutic outcomes. Radiation therapy is frequently used as palliative treatment and has been used in combination with chemotherapy.[6]

MATERIALS AND METHODS
It was a prospective, observational study was conducted in a corporatehospital with study duration of 2 years. 1195 patients were included in this study based upon the inclusion and exclusion criteria. The data were collected using standard data collection form.

Inclusion criteria
- All newly diagnosed patients with GI cancer
- Both genders
- Inpatients and outpatients
- All age group patients were included in the study.

Exclusion criteria
- Patients with incomplete data.
- Patients having any other pre-existing malignancies
- Patient whose biopsy report not available.
- Patient who is not willing for the treatment.

RESULT AND DISCUSSION
A total of 1195 patients were included in the study sample. Males (73%) were more frequently affected than females (27%). It is evident from Table 1 that Peak incidence was in 61-70year age group followed by other age groups. Based on the carcinoid site distribution of GI cancer, Stomach cancers were most frequent (24.18%), followed by Liver (21.75%), Rectum (18.32%), Colon (11.79%) and Oesophagus (11.29%), Pancreas (8.36%), Gall bladder (1.84%), Small intestine (1.50%), anal (0.87%) malignancies.Figure I show the area of residence of the GI cancer patients, among them 61.03% of the patients were from urban area and the remaining 38.97% of patients were from rural area.Figure II shows that 73.53% of patients having mixed diet and the remaining 26.47% vegetarians.Figure III shows the family history of GI cancer patients in the study population. Most of the patients showed a negative family history.Table II shows the carcinoid site distribution of GI cancer patients. Based on the carcinoid site distribution of GI cancer, stomach cancers were most frequent (24.18%), followed by liver (21.75%), rectum (18.32%), colon (11.79%) oesophagus (11.29%), Pancreas (8.36%),%), gall bladder (1.84%) ,small intestine (1.50) and anal (0.87%) malignancies. Figure IV shows based on the stages of tumour, (23.34%) of gastric cancer were diagnosed at localised, (32.7%) at regional, (37.1%) at distant stage.FigureV shows type of regimen used in GI cancer patients. Majority constituting (24.93%) Surgery, Radiotherapy (12.55%),Chemotherapy (19.74%), Surgery+ Radiotherapy (6.35%), Surgery+ Chemotherapy (15.14%), Chemotherapy + Radiotherapy (9.87%), Surgery + Chemotherapy+ Radiotherapy (11.38%).

CONCLUSION
Gastric cancer is the second leading cause of death from malignant disease worldwide and is the most frequently discovered in advanced stages[6,7] Early detection and early treatment are vital; improve the prognosis of gastric cancer.[8] From the study, clinical characteristics and prescribing pattern of GI cancer patients was identified and found out. Males were more frequently affected than females. Peak incidence was in the 61-70 year age group. Most of the patients was having mixed diet and belong to urban area of residence. Majority patients had a negative family history of cancer. Stomach tumours were more frequent, compared to other GI tumours. Most of the gastric cancers were diagnosed at regional stage of cancer. Based on the treatment pattern most of the patients had undergone surgery followed by other treatment modalities.

Table I: Age and Sex Distribution of patients in study population

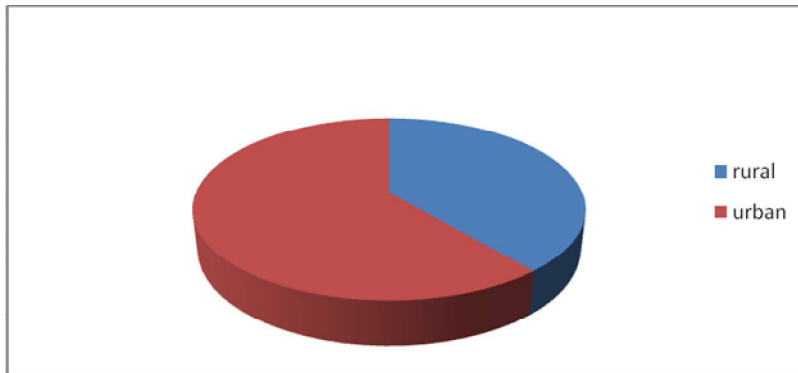| Age group	Male	Female	Total
0-10	3	0	3
11-20	2	0	2
21-30	18	4	22
31-40	25	22	47
41-50	71	50	121
51-60	231	78	309
61-70	312	81	392
71-80	214	85	299
Total	876	319	1195

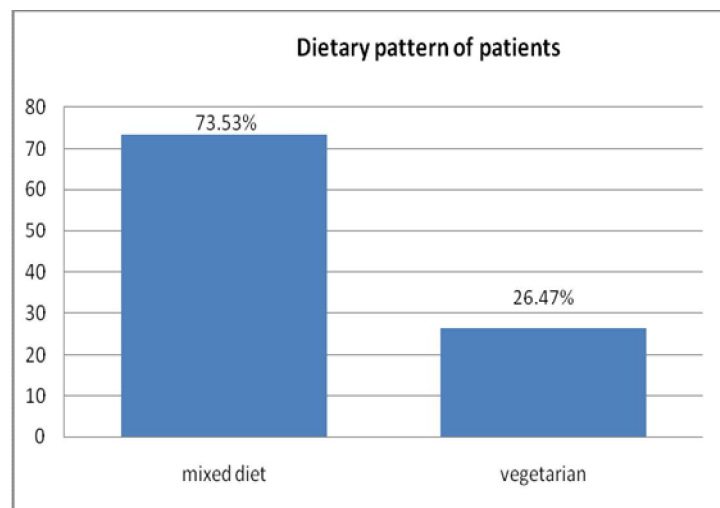**Fig. I: Area of Residence of patients in the study population**

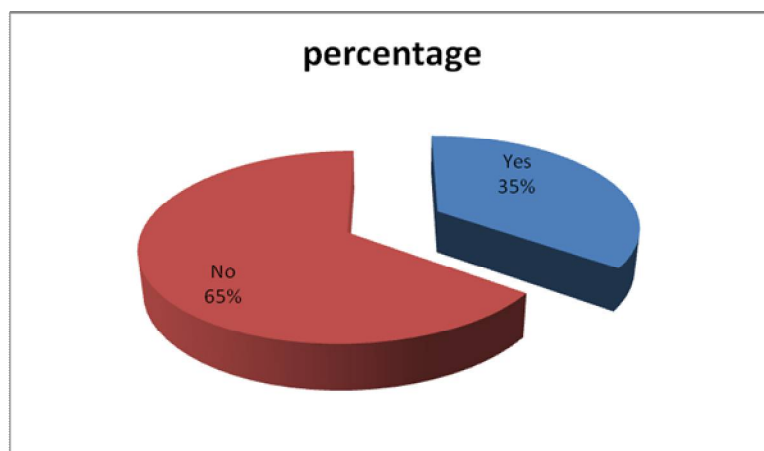**Fig. II: Diet pattern of patients in the study population**

**Fig. III: Family History of GI cancer patients
in the sample population**

**Table II: Carcinoid site distribution of
Gastro Intestinal system cancers**

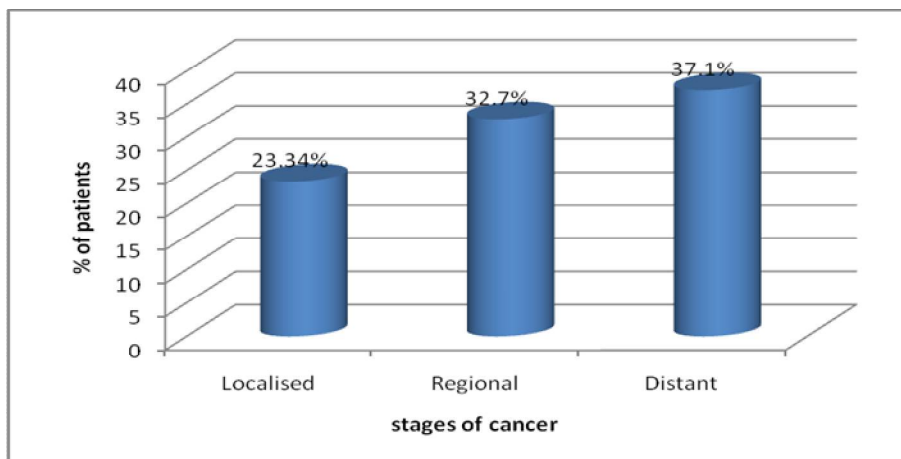| Sub site	Male	Female	Total	Percentage
Oesophagus	107	28	135	11.29
Stomach	228	61	289	24.18
Small intestine	11	7	18	1.50
Colon	87	54	141	11.79
Rectum	142	77	219	18.32
Anal canal	3	7	10	0.87
Liver	221	40	261	21.75
GB	11	11	22	1.84
Pancreas	66	34	100	8.36
Total	876	319	1195	100

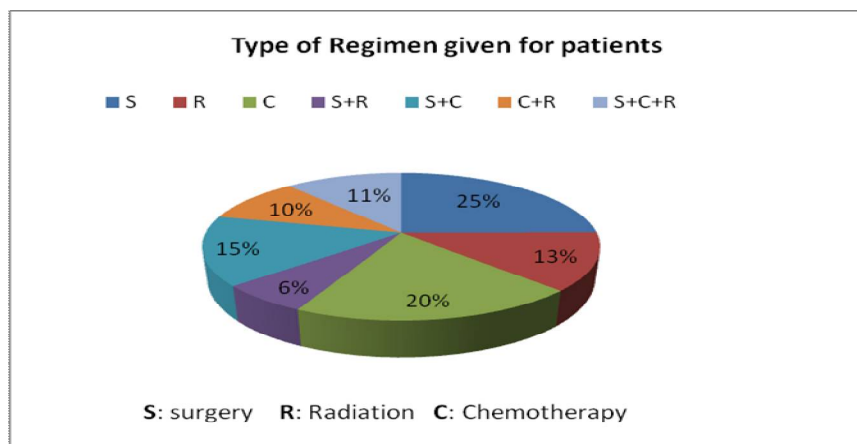**Fig. IV: Different stages of cancer in the sample population**

Fig. V: Type of Regimen in the sample population

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