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Study of prescribing pattern in patients with gastro-oesophageal carcinoma in a tertiary care hospital

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Abstract

Introduction: Esophageal carcinoma (EC) ranks 6th among all cancers in mortality. Gastric carcinoma (GC) is the 2nd most common cancer among men and 3rd most among females in Asia and worldwide. The aetiology in majority of patients was linked to tobacco and alcohol. Usually, treatment regimen followed EC, GEJ (gastroesophageal junction) and gastric carcinoma is DCF regimen as per National Comprehensive Cancer Network guidelines.

Objectives: To study the prescribing pattern in esophageal cancer, GEJ cancer & gastric carcinoma in a tertiary care hospital.

Materials and Method: A prospective observational study was done for a period of 6 months in both male & female patients diagnosed with EC, GEJ & GC. Prescribing patterns were recorded & analysed.

Results and Discussion: Total of 31 patients was included in the study; of which 19, 9 & 3 were diagnosed as EC, GC and GEJ carcinoma respectively. The most common treatment regimen followed were combination of cisplatin+5 fluorouracil+ radiotherapy in EC & GEJ whereas oxaliplatin +5-fluorouracil + leucovorin in GC.

Conclusion: In our study, anticancer drugs were prescribed in a combination therapy. In majority of upper gastrointestinal carcinoma patients 5-FU and platinum based combination therapy were used. Dexamethasone, granisetron and ondensetron were used to treat adverse drug reactions of anticancer drugs.

Keywords: Esophageal carcinoma; Gastric Carcinoma; GEJ carcinoma.

Introduction

Esophageal carcinoma (EC) ranks 6th among all cancers in mortality.(1) Gastric carcinoma (GC) is the 2nd most common cancer among men and 3rd most among females in Asia and worldwide.(2) The aetiology in majority of patients was linked to tobacco and alcohol. Usually, treatment regimen followed EC, GEJ and gastric carcinoma is DCF regimen as per National Comprehensive Cancer Network guidelines. The regimen followed in EC is paclitaxel+ carboplatin & oxaliplatin+5 FU in a study conducted by Mary et al.(3)

In India, cancer is responsible for 10% of total mortality in 2002 which is expected to rise up to 25-50% by 2020.(4)

Most frequent carcinomas reported in India were mouth, oropharynx, oesophagus, stomach, lungs, bronchus and trachea in males while carcinoma of cervix, breast, mouth, oropharynx and oesophagus in females.(5)

Objective

Present study had been conducted to evaluate prescribing pattern of anticancer drugs in gastro-oesophageal carcinoma.

Materials and Method

A prospective observational study was done for a period of 6 months in both male & female patients diagnosed with EC, GEJ & GC. Cases were collected from the Department of oncology at M.S. Ramaiah Hospitals. Bengaluru. Prescribing pattern were recorded & analysed.

Inclusion Criteria:

1. Patients who are diagnosed as EC, GEJ and GC
2. Both gender aged above 18 yrs receiving cancer chemotherapy

Data Analysis: The data were subjected to analysis for:

1. Demographic details (Age and gender distribution).
2. Chemotherapeutic agents prescribed.
3. Concomitant medications prescribed.
4. Site of cancer and percentage of patients affected by carcinoma

Results

Total of 31 patients was included in the study; of which 19, 9 & 3 were diagnosed as EC, GC and GEJ carcinoma respectively.

In the age of group of 55-64yrs, 37% of patients received chemotherapy

Table 1: Most common treatment regimen used

Esophageal carcinoma	Gastro-esophageal carcinoma	Gastric carcinoma
cisplatin + 5 fluorouracil + radiotherapy	cisplatin + 5 fluorouracil + radiotherapy	oxaliplatin +5-fluorouracil +leucovorin

Table 2

Age of Patients	Patients Received Chemotherapy
25-34yrs	3%
35-44yrs	16%
45-54yrs	22%
55-64yrs	37%

65-74yrs	19%
>75yrs	3%

Chart 1: Gender distribution

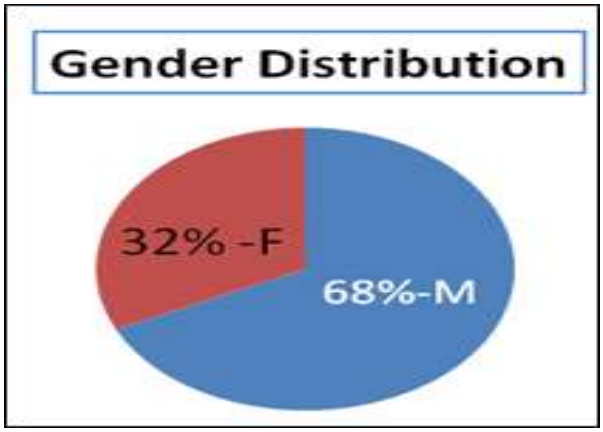


Chart 2: Shows percentage of patients who are on different chemotherapeutic regimens with respect to carcinomas

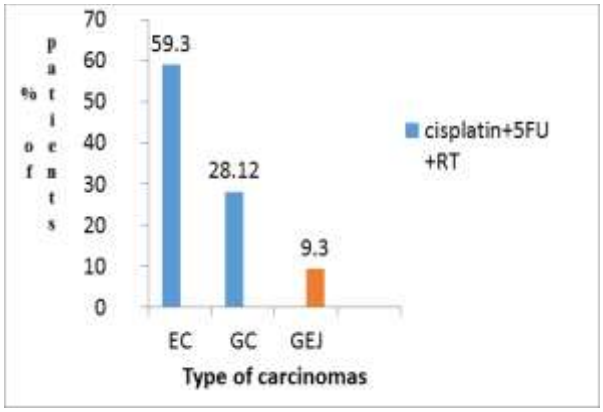


Chart 3: Site of cancer and percentage of patients affected by carcinoma

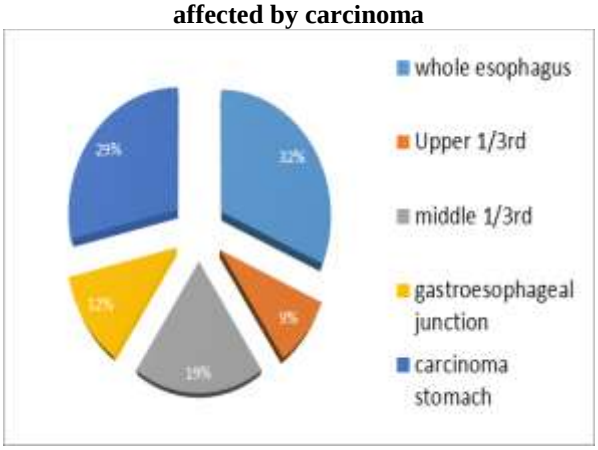
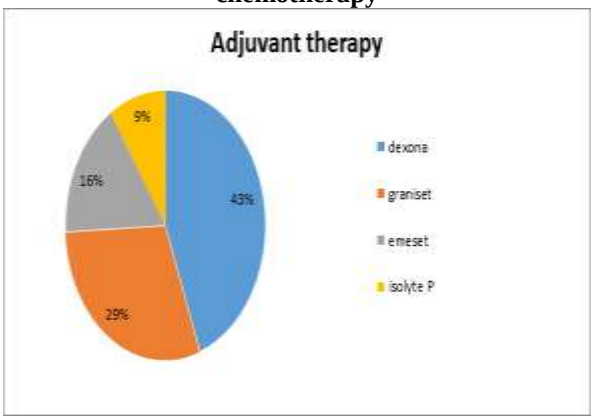


Chart 4: Percentage of patients showing adjuvant chemotherapy



Discussion

The present study was carried out for a period of 6months. The baseline demographic data like age and sex were taken where male to female ratio was 2:1. Gender distribution shown. (Chart 1). The greater prevalence of cancer in males can be because of social habits. In our study, 37% patients were in the age group of 55-64 years (Table 2). Ageing related processes may be responsible for increased cancer prevalence at increased age. Incidence of cancer increases as the age advances. According to the 1994 Surveillance, Epidemiology, and End Results Program of the National Cancer Institute, over 50% of all cancers occur in patients who are older than 65 years of age.[6] In our study anticancer drugs were mostly prescribed in combination with different regimens as shown above. (Table 1). This finding is consistent with the existing utilization pattern of anticancer drug.[7] In the present study, gastro esophageal carcinomas are treated by combination therapy of 5-FU and platinum compound. Anthracyclines rank among the most effective anticancer drugs ever developed.[8] In contrast to these findings, 5-FU and platinum compounds combination along with radiotherapy usage for the management esophageal and gastro-esophageal junction carcinoma were prescribed in 59.3%of patients and remaining 28.12% of patients were prescribed oxaliplatin, 5-FU and leucovorin(chart no-2). 5-HT3 antagonists (granisetron, ondensetron) and corticosteroids (dexamethasone) were given as an adjuvant therapy to prevent incidence od adverse drug reactions caused by chemotherapeutic regimen (Chart 4). Addition of dexamethasone, 5-HT3 antagonists has been shown to improve the control of acute phase of chemotherapy induced vomiting.[9,10]

Conclusion

In the present study, most of the anti-cancer drugs were almost always prescribed in combination. 5-FU and platinum based combination therapy was preferred in majority of patients. 5-HT3 antagonists (granisetron), corticosteroids (dexamethasone) and were given as a

prophylaxis to prevent the incidence of adverse effects of anticancer drugs

In the future, the Study can also be conducted regarding adverse drug reactions, the dose of the drugs and can compare the combination of surgical & chemo radiation treatment in gastro-oesophageal carcinoma

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