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Original Research Article

A Prospective Comparative Study between Emergency and Elective Presentation of Carcinoma Stomach

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Abstract:

Introduction: Carcinoma stomach is the 2nd principal cause of cancer-related death and the 5th prime cause of cancer. Emergency presentation of carcinoma stomach influences the survivance and remarkably affects the prognosis. A surgical procedure is the only curative option for localized disease.

Methods: It was a prospective type of study. About 58 patients who were admitted with carcinoma stomach in King George Hospital, Andhra Medical College, Visakhapatnam were studied. This study was undertaken from April 2022 to October 2023. Out of these 58, 11 were presented with acute symptoms and 47 were presented with non-acute symptoms.

Results: A total of 58 patients presented: 11 were presented to an emergency department and 47 were presented electively. Patients presented to the emergency department were grouped according to the presentation. The results showed as 6 showed with obstructions, 4 with haematemesis, and 1 with perforation

Conclusion: Patients presenting in the emergency department are usually linked with a late stage of the illness. The resources should be made towards a diagnosis of the disease in the early stage, increasing awareness of the patient. There is a remarkable effect on morbidity and mortality in patients presenting with late-stage illness. Emergency presentation is rare and remarkably affects prognosis. In the setting of elective presentation for staging workup endoscopy, Endoscopic ultrasound, PET CT, and Staging laparoscopy are to be done.

Keywords: Carcinoma Stomach, Emergency, Elective, Perforation, Hematemesis, Malignancy.

Introduction

The demonstration of carcinoma stomach is with non-acute symptoms but also presents to the emergency department with hematemesis, perforation, and obstruction. [1] Acute presentation of carcinoma stomach influences survivance. Blackshaw et al. revealed that there are six months of survivance time for those who presented acutely; and twelve months of survivance for those who presented electively. [1] The two main classifications of carcinoma stomach are described: Lauren, the most commonly used, and WHO, which is perceived to be the most detailed among all of the pathohistological classification systems. [2] The cancer development process is caused by both genetic and environmental factors.

Around 50% of cancer incidents might be provoked by environmental agents, mostly dietary habits and social behavior. Several components have been implicated to have a remarkable impact on the raised risk of developing carcinoma stomach like family history, diet, alcohol consumption, smoking, helicobacter pylori, and Epstein-Barr virus.2Proper diet, early detection, and follow-up proper management; leads to the depletion of recorded incidents. The carcinoma evolution process is caused by both genetic and environmental factors. [3] Principal causes of carcinoma stomach are due to dietary habits, environmental agents, and social behavior. Male gender was more commonly affected in the ratio of 2-3:1.

The main activities for the avoidance of gastric malignancy are proper diet habits and eradication of H. pylori infection. The other preventive method is detection in the early stage by available resources, mainly the endoscopic method. In the treatment of gastric malignancy, surgical procedures play a crucial role. Endoscopic resection and minimally invasive access had an important impact on the treatment strategies in the last few decades.

Aims and objectives

The aim of the present study is:

- To examine the patterns of presentation in view of presenting complaint, stage of presentation, plan of treatment and prognosis.
- To compare the mode of presentation that has an influence on the outcome of patients.

Materials and Methods

This prospective study included patients presenting to a tertiary centre between 2022 and 2023 for a period of 18 months i.e., from April 2022 to October 2023.

Inclusion criteria:

- Patients presenting with carcinoma stomach either to the emergency department or electively.
- Patients above 18yers of age
- Patients who are willing to give consent.

Exclusion criteria:

- Patients below 18 years of age
- Patients not willing to give consent.
- Patients with Gastro-esophageal junction was excluded.

All the patients presenting with Gastric cancer were examined thoroughly and baseline findings are recorded, repeated examination of the patients was done till the diagnosis is confirmed. Proper history of the patient is taken in detail if the patient is stable.

In the case of unstable patients, they were resuscitated first, and history was taken after stabilization. The previous hospital records were also reviewed to obtain appropriate epidemiological information regarding age, sex, occupation, dietary habits, hereditary risk factors, clinical presentation, duration of symptoms, past history of chronic duodenal ulcer, investigations, and mode of treatment. After a thorough examination, investigations to confirm my diagnosis like a Plain X-ray of the abdomen (erect), Chest X-ray with both domes of the diaphragm, USG abdomen, and CECT abdomen are done when required. In the setting of elective presentation for staging workup endoscopy, Endoscopic ultrasound, PET CT, and Staging laparoscopy. Other investigations like Hb%, TC, DC, ESR, blood grouping and Rh typing, Blood urea, serum creatinine, blood sugar, HBsAg, HIV, and urine routine. Gas under the diaphragm on an x-ray erect abdomen is indicative of perforation. Patients presenting acutely require immediate admission for treatment of symptoms like,

1. Haematemesis
2. Perforation
3. Gastric outlet obstruction

Based on the presentation and findings patients were divided into two groups, who are fit for surgery and not fit for surgery.

Patients with resectable disease were treated with curative intent. Patients with stage 4 disease or those deemed unfit for resection were diverted to a palliative care pathway. Neoadjuvant chemotherapy was considered for all patients with T3 or higher stage of cancer (according to the MAGIC trial).

Data regarding the symptoms to presentation, type of surgical procedure, intraoperative findings, the duration of hospital stay (LOS), postoperative complications, mortality rates, and the need for additional surgical procedures are recorded and tabulated. To compare between the emergency and the non-acute symptoms the x2 test and Fisher's test were used. A p-value of less than 0.05 was taken as statistically significant.

Results

For a period of 18 months, 58 showed carcinoma stomach. Out of 58 patients, 11 (18.96%) showed acute symptoms like upper gastrointestinal bleeding, gastric perforation, or gastric outlet obstruction. Rest of 47(81.03%) patients showed non-acute symptoms.

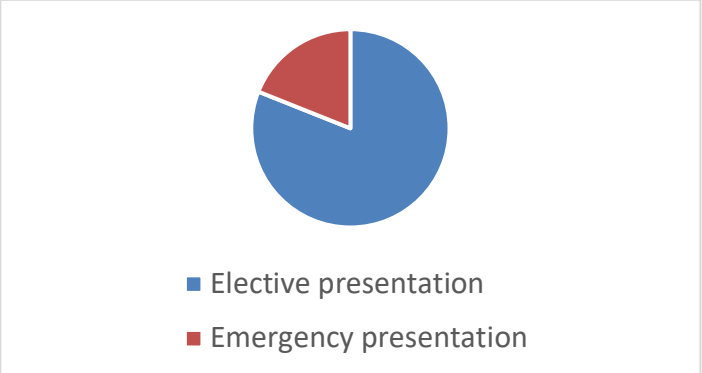

Figure 1: Ratio of emergency & elective presentations of carcinoma stomach

From the emergency group six patients presented with obstruction (54.54%), one patient with perforation (9.09%), and four patients presented with haematemesis (36.36%). Elective patients presented with lower-stage disease, stages 1 and 2 accounting for 37.6% of cases, compared with 23.1% of the emergency cases ($p<0.05$). Twenty-five percent of elective cases presented with stage 4 disease, compared to 45% of emergency cases ($P<0.05$)

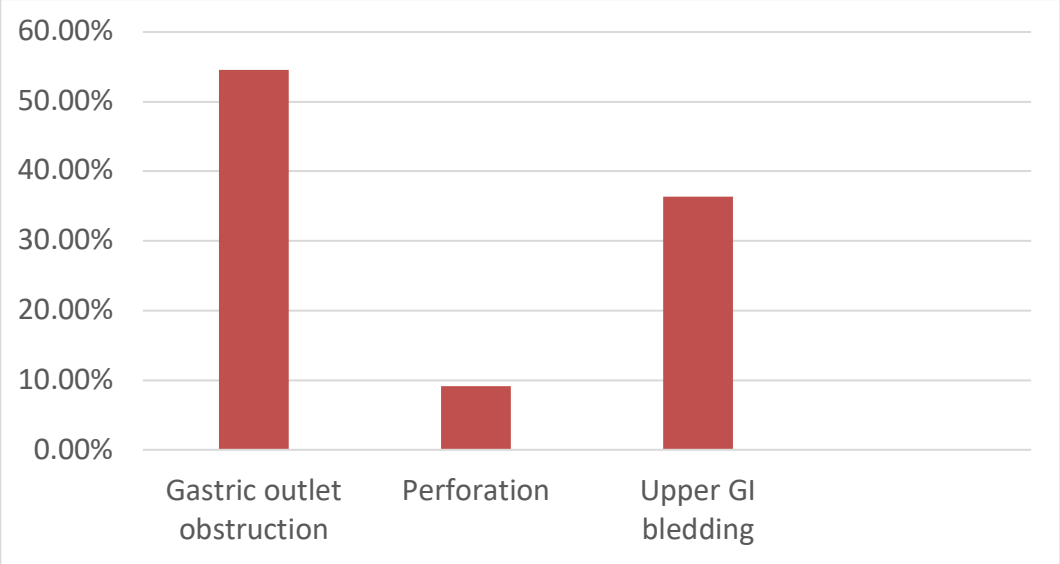

Figure 2: Emergency presentations of carcinoma stomach

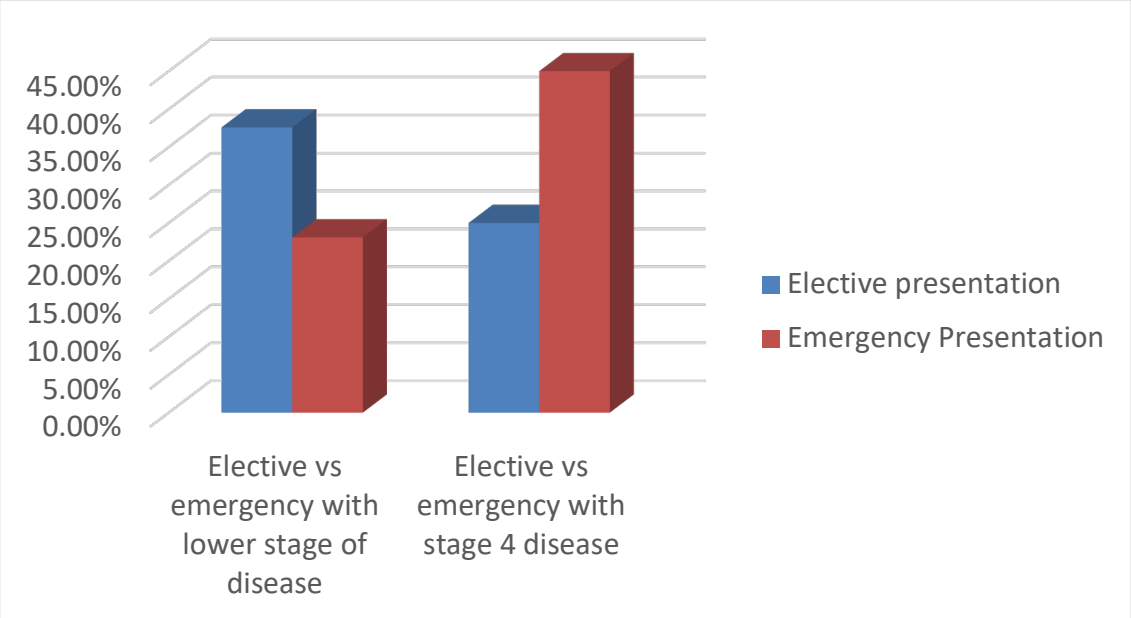

Figure 3: Comparison between elective and emergency presentations in early & advanced gastric carcinomas

31(53.44%) patients underwent operative intervention; the remaining 27 patients had oncological, endoscopic, or supportive palliative care. In the elective group 27(57.44%) patients out of 47 patients were treated with curative intent, compared with 4(36.36%) out of 11 in the emergency group. In the emergency group 3(27.27%) patients were unfit for any operative intervention and treated palliatively, 4(36.37%) patients underwent non-curative procedures (gastro-jejunostomy or non-curative distal gastrectomy), 4(36.36%) patients undergo curative procedures (distal gastrectomy and total gastrectomy). Patient presented with gastric perforation and underwent emergency laparotomy. The Patient underwent palliative distal gastrectomy. Survival for this patient was 5 months.

Table 1: Comparison of management in elective & emergency presentations of carcinoma stomach

N = 58		Presentation			
		Elective		Emergency	
		No. of patients	%	No. of patients	%
Type of operation	None	20	42.5	3	27.2
	Total Gastrectomy	8	17	2	18.1
	Distal Gastrectomy	12	25.5	3	27.2
	Gastro-jejunostomy	2	4.2	2	18.1
	Laparotomy	4	8.5	1	9.09
	Local Excision	1	2.1	0	0
	Total	47		11	

Overall survival at one year for emergency patients was 48.3% compared to 63.4% in elective patients. In the elective group the pre-operative assessment, cross-sectional imaging, and laparoscopy identified 20 patients (43.5%) with unresectable or metastatic disease.

Conclusion

There is a significant difference in the outcomes of patients who presented electively or to the emergency department. [6] Emergency surgery within 24 hours of presentation for gastric malignancy is extremely rare. Our experience shows that emergency lifesaving intervention can be successfully followed by cancer therapy for reasonable survival. [8] Presenting to emergency is usually associated with advanced disease and resources should be diverted towards early diagnosis, increasing patient awareness. [10]

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