

A Study on Clinical Presentation and Morphological Types of Carcinoma in Stomach

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Abstract

Introduction: Gastric cancer mortality rates have remained relatively unchanged over the past 30 years, and gastric cancer continues to be one of the leading causes of cancer-related death. Well-conducted studies have stimulated changes to surgical decision-making and technique.

Aim: The aim of the study was to study various modes of clinical presentation and morphological types of carcinoma in stomach.

Materials and Methods: Observational cross-sectional study in patients with carcinoma stomach. Clinical examination and other relevant investigation were done.

Results: In our study, dyspepsia is the most common clinical presentation (36%) followed by loss of weight 18% and pain abdomen 14%. Antrum forms the most common site of carcinoma stomach (68%), protruding type most common (52%) out of three types of lesions, protruding has a better prognosis than the other two types. Infiltrative type carries the worst prognosis.

Conclusion: The peak incidence of carcinoma stomach in our study is in fourth decade. Epigastric pain, dyspepsia, anorexia, and weight loss are the most common clinical symptoms of carcinoma stomach. It predominantly involves the antrum, usually as polypoid/fungating or ulcerated lesion and the majority of gastric carcinomas.

Key words: Diffuse type, Gastric carcinoma, Intestinal location, Intestinal type, Morphology

INTRODUCTION

Gastric cancer is the second most common cancer worldwide, with a frequency that varies greatly across different geographic locations. It is a relatively infrequent neoplasm in North America, yet contributes substantially to the burden of cancer deaths.^{1,2} The symptoms and sign of the stomach cancer are often reported late when the disease is already in advanced stages and 5 years survival is <30% in developed countries and around 20% in developing

countries.³ In India, the number of new stomach cancer cases in 2001, was estimated to be approximately 35,675 ($n = 23,785$ in men; 11,890 in women).⁴ Surgery is the mainstay for the treatment of gastric cancer. Subtotal gastrectomy is the preferred modality in distal cancers and total or proximal gastrectomy is preferred in proximal cancers.⁵ A combination of chemotherapy and radiotherapy has been very effective in certain malignancies such as head and neck cancers and anorectal cancers. The chemotherapy potentiates the effect of radiation therapy and helps in controlling distant metastasis. Pre-operative chemoradiotherapy looks attractive as it has the potential to downsize tumors and make unresectable gastric cancer resectable.

Aim

The aim of the study was to study various modes of clinical presentation and morphological types of carcinoma in stomach.

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MATERIALS AND METHODS

Observational cross-sectional study was conducted in the Department of General Surgery, Government Rajaji Hospital, Madurai. Histopathologically proven cases of carcinoma stomach were screened. Institutional Ethics Committee approval and informed consent from the patients were obtained. Thorough evaluation of these patients was done clinically, endoscopically, and radiologically and other relevant investigations were done to arrive at a confirmatory diagnosis. Most of these patients were treated surgically with varied results. The incidence of carcinoma stomach in relation to age, sex, and site was studied. The various available investigations, the treatment modalities, and their outcome were analyzed. All patients were followed-up in the immediate post-operative period and some were followed-up thereafter, for a period ranging from 1 month to 2 years.

RESULTS

The youngest patient in our study was a 35-year-old woman with an undifferentiated carcinoma of antrum of stomach and the oldest was on 81-year-old man with carcinoma of antrum. In our series, gastric cancer was found to be common in the fourth decade of life 38% (Table 1).

In our series of 50 cases, antrum forms the most common site of carcinoma stomach (68%). Next common site was body of stomach (20%). Least common site is fundus about 6% (Table 2).

In our study, protruding type most common (52%) out of three types of lesions, protruding has a better prognosis than the other two types. Infiltrative type carries the worst prognosis. Most of our cases with infiltrative type lesions were inoperable. Infiltrative type is least common in our series about 22%. In our series of 50 cases, all cases were reported as adenocarcinoma. Adenocarcinoma of stomach has been histologically subclassified as papillary, tubular, mucinous, and signet-ring type. Four of our cases with diffusely infiltrative lesions were reported as signet-ring type (Table 3).

In our study, dyspepsia is the most common clinical presentation (36%) followed by loss of weight 18% and pain abdomen 14% (Table 4).

DISCUSSION

The peak incidence of carcinoma stomach in our study is in fourth decade. According to the western study reports,

Table 1: Age distribution of study patients

Age group	Male	Female	Total (%)
31-40	0	1	1 (2)
41-50	7	12	19 (38)
51-60	4	9	13 (26)
61-70	5	8	13 (26)
71-80	1	2	3 (6)
81-90	1	0	1 (2)
Total	18	32	50 (100)

Table 2: Incidence of location of carcinoma stomach

Site	Male	Female	Total (%)
Antrum	15	19	34 (68)
Body	1	9	10 (20)
Fundus and cardia	2	4	6 (12)
Total	18	32	50 (100)

Table 3: Distribution of morphology

Macroscopic types	Antrum	Body	Fundus	Total (%)
Protruding	16	6	4	26 (52)
Ulcerative	10	2	1	13 (26)
Infiltrating	8	2	1	11 (22)
Total	34	10	6	50 (100)

Table 4: The clinical presentation of carcinoma stomach

Clinical presentation	Antrum	Body	Fundus	Total (%)
Dyspepsia	15	2	1	18 (36)
Pain	5	1	1	7 (14)
Anorexia	3	1	1	5 (10)
Vomiting	1	1	1	3 (6)
Hematemesis	1	1	1	3 (6)
Melena	1	1	1	3 (6)
Dysphagia	1	1	1	3 (6)
Loss of weight	7	2	0	9 (18)
Total	34	10	6	50 (100)

the peak incidence of gastric cancer is in seventh decade. The disease is rare before 30 years. The clinical and pathological characteristics of gastric cancer diagnosed in young patients have been described in various recently published reports.⁶ In a population that included patients who were over and under the age of 30 years, Bedikian *et al.* reported that both groups presented with similar symptoms, predominantly undifferentiated neoplasms, and poor prognosis.⁷ Occurrence of carcinoma stomach is more in men than in women. In our series, out of 50 cases, the male to female ratio is 1:1.8, 18 (36%) being male and 32 (64%) females. The usual high incidence in males is probably due to increased association with smoking and alcohol consumption when compared to females. However, our studies male is lower than female sex incidence.⁸

Similar to that reported in Caucasians, epigastric pain, dyspepsia, anorexia, and weight loss are the most common clinical symptoms of carcinoma stomach in our region. A palpable mass was present in 66% of the patients indicating an advanced disease, and hence, curative surgery was not possible in them. Antrum forms the most common site of carcinoma stomach (68%). Next common site was body of stomach (20%). Least common site is fundus about 6% which is similar to that in Japan, where distal lesions are the most common.⁹

The most common macroscopic type of carcinoma stomach in our region is protruding type next to which is the ulcerative type. There are no pathognomonic symptoms of early cancer, and so called classical clinical manifestations are usually those of an advanced tumor.¹⁰

CONCLUSION

The peak incidence of carcinoma stomach in our study is in fourth decade. Epigastric pain, dyspepsia, anorexia, and weight loss are the most common clinical symptoms of carcinoma stomach. It predominantly involves the antrum, usually as polypoid/fungating or ulcerated lesion and the majority of gastric carcinomas.

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