

A Study Onetiopathogenesis and Management of Carcinoma Stomach

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Abstract:

Background: Worldwide, gastric cancer is the fourth most common cancer and the second leading cause of cancer death. There is a marked difference in the north and south side of India. Stomach cancer admission in South India is 4 times as frequent as North India, with a remarkable preponderance of males (20:1) versus (7:1) in rest of India. An exception to relative low incidence of gastric cancer in North India is Kashmir where the incidence is 3 to 6 times higher than in the rest of India.

Methodology: A prospective study of 72 cases of carcinoma of stomach admitted in surgical wards of Government General Hospital, Kakinada, from August 2016 to September 2018 was done.

Results: A total of 72 cases were diagnosed in two-year period. There is a male preponderance; male: Female ratio of 3:1. More than 80% of the cases were in the age group of 41 to 70 years. Blood groups A constitute most of the cases. Duration of symptoms varied between one month to 9 months. Pain abdomen and vomiting are presenting symptoms in most of the cases. Early gastric carcinoma was detected in 12 cases only. Most of the cases were advanced carcinomas. Pyloric antrum was involved in 2/3rd of cases. Curative resections were done in half of the cases, palliative in the remaining cases. Patients with curative resection survived for average period of 18 months, those without any procedure survived for average period of 6 months.

Keywords: gastric cancer, Pyloric antrum, vomiting

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I. Introduction

Worldwide, gastric cancer is the fourth most common cancer and the second leading cause of cancer death¹. There is a marked difference in the north and south side of India. Stomach cancer admission in South India is 4 times as frequent as North India, with a remarkable preponderance of males (20:1) versus (7:1) in rest of India². An exception to relative low incidence of gastric cancer in North India is Kashmir where the incidence is 3 to 6 times higher than in the rest of India³.

II. Materials and Methods

A prospective study of 72 cases of carcinoma of stomach admitted in surgical wards of Government General Hospital, Kakinada, from August 2016 to September 2018 was done.

Only histopathology proved cases were included. All the patients were investigated with U/S abdomen, Upper G.I endoscopy and CECT Abdomen. Patients were prepared preoperatively by correcting dehydration with I. V. Fluids and anaemia with parenteral iron and blood transfusions.

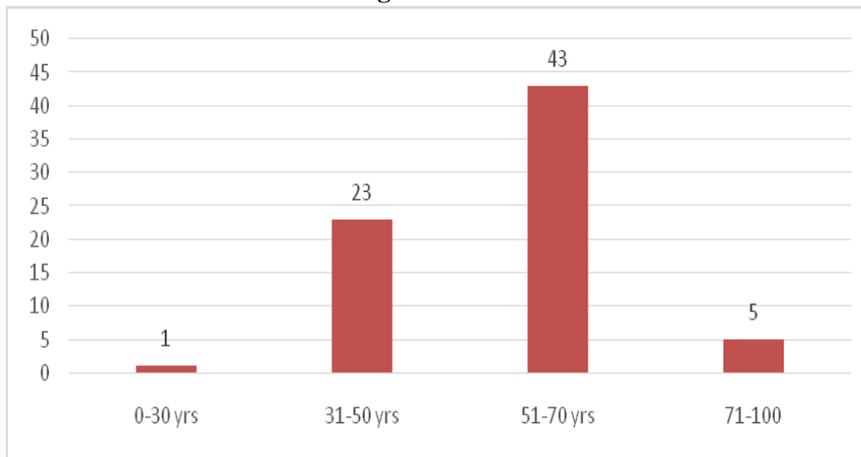
Gastric lavage was done on previous day of surgery. The surgical procedures adopted were curative gastrectomies, palliative gastrectomies, anterior gastrojejunostomy, and feeding jejunostomy. All the patients were offered adjuvant chemotherapy inj. 5FU and inj. Leucovorin from D1 to D5 for every 4 weeks for a minimum period of 6 months. The patients were followed up by estimating Hb%, Total Count and platelet count once in a month. U/S abdomen and Upper G.I endoscopy were done for every 3 months.

III. Observations

Sex Incidence

SEX	NUMBER OF CASES	PERCENTAGE
Male	54	75%
Female	18	25%

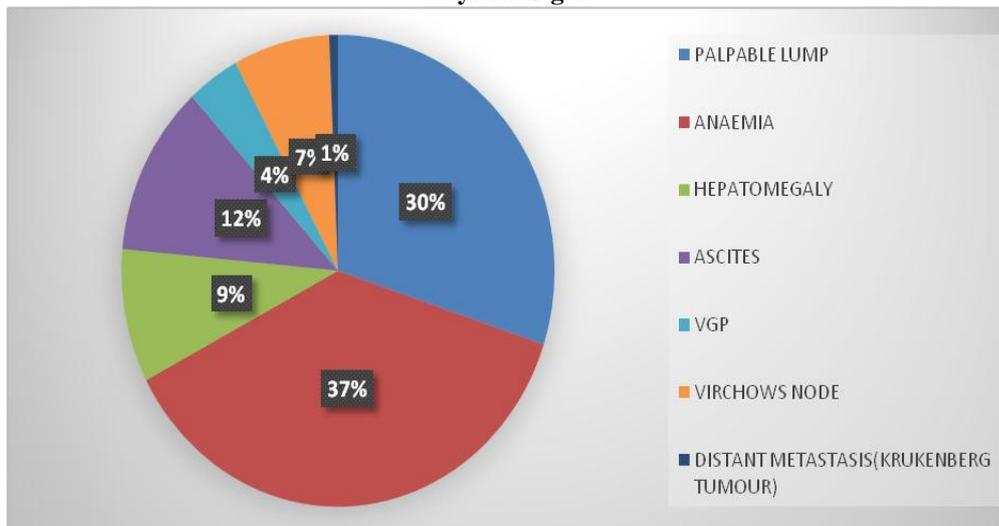
Age Incidence



Frequency of Presenting Symptoms

SL. NO.	SYMPTOMS	NO.OF CASES	PERCENTAGE
1	Pain abdomen	57	77%
2	Vomiting	55	74%
3	Loss of appetite	40	54%
4	Loss of weight	40	54%
5	Malena	23	31%
6	Dysphagia	12	16%

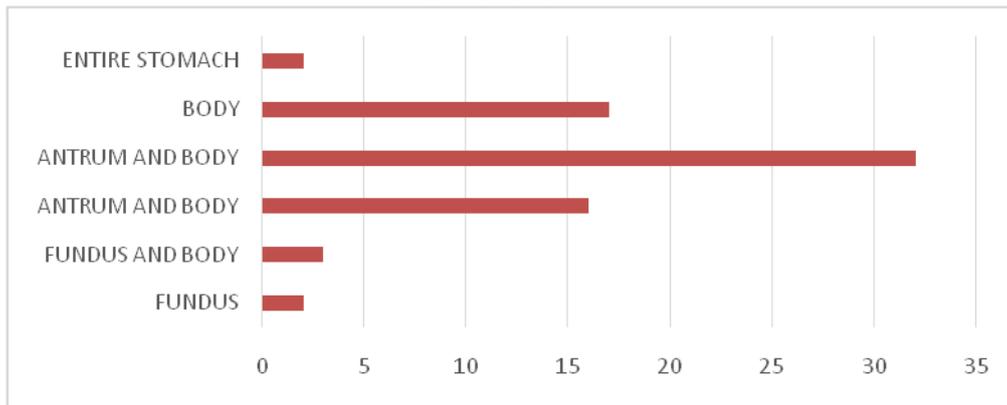
Physical Signs



Blood Group Analysis

BLOOD GROUP	NO OF CASES	PERCENTAGE
A	25	35%
B	20	28%
O	18	25%
AB	9	12%

Site of Growth



Staging

SL.NO.	STAGE	NO. OF CASES	PERCENTAGE
1	I	2	3%
2	II	10	14%
3	III A	14	19%
4	III B	7	10%
5	IV	39	54%

Findings At Laparotomy

SL.NO	FINDINGS	NO OF CASES	PERCENTAGE
1	Invasion of Serosa	48	65%
2	Lymphnode involvement	45	60%
	Perigastric	22	30%
	Coeliac&splenic	9	12%
	Paraaortic		
3	Liver secondaries	8	11%
4	Peritoneal secondaries	10	14%
5	Ascites	12	16%
6	Direct infiltration		
	Liver	3	4%
	Pancreas	10	14%
	Transverse colon	4	5%

Type of surgery Adopted

SL.NO.	SURGERY	NO. OF CASES	PERCENTAGE
1	Radical Gastrectomy	5	7%
2	Subtotal gastrectomy	30	42%
3	Anterior gastrojejunostomy	5	7%
4	Feeding jejunostomy	13	18%
5	No.Laparotomy	19	26%

Histology

SL.NO.	NATURE OF ADENOCARCINOMA	NO. OF CASES	PERCENTAGE
1	Well differentiated	10	13%
2	Moderately differentiated	27	37%
3	Poorly differentiated	35	50%

IV. Discussion

Sex Incidence

In this study males are 54 in number and constitute 75%. Females are 18 in number and constitute 25%. Male to female ratio is about 3:1. Study conducted by **JOSEPH L, NALLAMPAT S, AND SASIDHARAN V P** shown there is increased incidence of carcinoma of stomach in males.

STUDY	% OF MALES	% OF FEMALES
M A KABIR, R BARUA	64	36
PRESENT STUDY	75	25

Age Incidence

Total 72 patients were studied. Majority of patients were in the age group of 51-60years and constitute about 42%. Youngest patient admitted was 20year old. Oldest patient admitted was 85year old.

Maximum incidence is observed in the age group of 51 to 60 years, which correlated with the study conducted at Tata Memorial Hospital, Mumbai. **M A KABIR, R BURUA, AND H. MUSAD-2011**STUDY shown that average age of diagnosis of carcinoma of stomach is 51 plus or minus 14 years.

Frequency of Presenting Symptoms

In my study, most common presenting symptoms are pain abdomen and vomiting which constitute 75% of cases.

Among other symptoms such as loss of appetite, loss of weight, melena and dysphagia, the least common symptom was dysphagia which constitute 16% of cases.

SYMPTOMS	M A KABIR, R BARUA STUDY	PRESENT STUDY
Pain abdomen	100%	77%
Vomiting	78%	74%
Loss of appetite	36%	54%
Loss of weight	62%	54%
Malena	23%	31%
Dysphagia	24%	16%

Physical Signs

In my study palpable lump and anaemia were most common physical signs and constitute 70% of cases. Virchow’s nodes seen in 15% of cases and one patient present with distant metastasis. (krukenbergtumor).

Blood Group Analysis

There is predominance of Blood group A. **PETER J D ADAMO, ND 2000-2009** STUDY declared that Blood group A is associated with increased risk of gastric cancer.

Site of Growth⁴

In my study commonest site of growth is antrum followed by body of stomach which constitute about 44% and 24% respectively. Entire stomach is involved in 3% of cases.

Waisberg J, Andre EA, Franco MI Study- 2006 given that majority of lesion in carcinoma of stomach are located in the antrum.

SITE OF GROWTH	M A KABIR, R BARUA STUDY	PRESENT STUDY
Fundus	4%	3%
Fundus and Body	4%	4%
Antrum and body	24%	22%
Antrum	50%	44%
Body	18%	24%
Entire stomach	0%	3%

Findings At Laparotomy

In my study invasion of serosa was found in 65% of cases.

Liver and peritoneal secondaries were seen in 11% and 14% respectively.

More than 50 % of cases had lymph nodal involvement by the time of presentation. Pancreas is the common organ to be involved by direct infiltration.

Staging

In my study most of the patients presented with stage 4 disease, which constitute of about 54% of cases. Stage 1 and 2 disease was found in 3% and 14% of cases respectively.

Type of Surgery Adopted

In my study 42% of cases underwent sub-total gastrectomy with gastro jejunostomy with jejunostomy. It same as study conducted by **M SIKKA S, TAZIMA, BENHAMICHE AM BrJ.Surg 1997**. They stated as proportion of curative resections is 50%.

In my study 35 patients underwent curative resection, out which 6 patients died post operatively. Operative mortality is 17.1%.

It is comparable to study conducted by **M SIKAS, TAZIMA, BENHAMICHE AM** Br J.Surg 1997 study gave operative mortality as 13.6%.

In about 26% of cases, laparotomy was not done due inoperability of the cancer.

Feeding jejunostomy done in 18% of cases.

Histology

In my study poorly differentiated carcinoma is commonly encountered which constitute of about 50% of cases, whereas moderately and well differentiated adenocarcinomas were 37% and 13% of cases.

My study is comparable to **IGOR RABIN, ANDRONIK KAPIEV & BARACHIKMAN STUDY**.

NATURE OF ADENOCARCINOMA	OF	IGOR RABIN, ANDRONIK KAPIEV & BARACHIKMAN STUDY	PRESENT STUDY
Well differentiated		8.3%	13%
Moderately differentiated		50%	37%
Poorly differentiated		41.7%	50%

All the patients in this study were advised chemotherapy with inj. 5FU and inj. Leucovorin. Inj. 5FU 500 mg I.V in 5% Dextrose from day 1 to 5 were given once in 28 days. Before starting each cycle of chemotherapy Hb%, total count and platelet count were estimated. If low normal counts were detected the cycle of chemotherapy was skipped and arrangements were made for blood transfusion. Minimum of 6 cycles of chemotherapy were given.

Of the 72cases, 35 patients (49%) underwent gastrectomy.

28 patients (38%) weresurvived for average period of one and half year to 2 years. 17 patients (23%) were alive, under follow up. Remaining patients with advanced carcinoma (51%) had survived for average period of 9 months.

SHIRAIISHI N, SATOK, YASODA K, J.Surg oncol.2007 Study stated median survival period who underwent gastrectomy is 15 months.

V. Conclusion and Summary

There is a male preponderance; male: Female ratio of 3:1. More than 80% of the cases were in the age group of 41 to 70 years. Blood groups A constitute most of the cases. Duration of symptoms varied between one month to 9 months. Pain abdomen and vomiting are presenting symptoms in most of the cases. Early gastric carcinoma was detected in 12 cases only. Most of the cases were advanced carcinomas. Pyloric antrum was involved in 2/3rd of cases. Curative resections were done in half of the cases, palliative in the remaining cases. Patients with curative resection survived for average period of 18 months, those without any procedure survived for average period of 6 months.

References

- [1]. Crew, Katherine D and Alfred I Neugut. "Epidemiology of gastric cancer" *World journal of gastroenterology* vol. 12,3 (2006): 354-62.
- [2]. Malhotra S. L Geographical distribution of gastrointestinal cancers in India with special reference to causation. *Gut* 1967; 361-72.
- [3]. Khuroo MS, Zargam SA: Mahajan R Bandy MA. High incidence of oesophageal and gastric cancer in Kashmir in a population with special personal and dietary Habits.
- [4]. Kabir MA, Barua R, Masud H, et al. Clinical presentation, histological findings and prevalence of helicobacter pylori in patients of gastric carcinoma. *Faridpur Med Coll J* 2011;6(2):78-81.
- [5]. Kelley JR, Duggan JM. Gastric cancer epidemiology and risk factors. *Journal of Clinical Epidemiology* 2003;56(1):1-9.
- [6]. Blot WJ, Devesa SS, Kneller RW, et al. Rising incidence of adenocarcinoma of the esophagusand gastric cardia. *The Journal of the American Medical Association* 1991;265(10):1287-9.

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