Section: General Surgery

Original Research Article

A PROSPECTIVE STUDY ON THE DEMOGRAPHIC AND CLINICO-PATHOLOGICAL PROFILE ASSOCIATED WITH GASTRIC ADENOCARCINOMA

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Abstract

Background: Gastric cancer is the 4th most common cancer in the world (9% of all cancers) after lung, breast and colorectal cancer. Over all, it is the 2nd most common cause of death but in some Asian countries, it is still the 1st common cause of cancer death. It is usually seen in patients >50 years. Worldwide the incidence of new cases of gastric cancer in 2002 was 934,000 of which 56% cases were from Asia. **Materials and Methods:** Employed in this prospective observational study were including patients attending general surgery department in IPGME&R SSKM Hospital, Kolkata. Patients included in the study were those who were diagnosed with gastric adenocarcinoma for a study duration of one and half years. **Result:** Drawn showed increased prevalence of gastric carcinoma in male gender from rural background predominantly affecting age group of 40-59 years. Anatomically the pyloric antrum was the most common site to harbour cancer with higher predisposition to intestinal type of gastric adenocarcinoma. **Conclusion:** The incidence of gastric adenocarcinoma was prevalent in 1. Male in age group 40- 59 years. 2. Rural population. 3. Smokers. 4. Pylori antrum was the predominantly affected area with intestinal histopathological type.

INTRODUCTION

Gastric cancer is the 4th most common cancer in the world (9% of all cancers) after lung, breast and colorectal cancer.[1-3]

This study addresses the demographic and clinic-pathological profile associated with gastric adenocarcinoma in a tertiary care hospital in Eastern India.[4,5]

Aim & Objective

Study the demographic and clinic-pathological profile associated with gastric adenocarcinoma patients.

MATERIALS AND METHODS

Study Area: Patients attending Department of General Surgery, IPGME&R and SSKM Hospital, Kolkata.

Study Population: Patients with diagnosed Gastric Adenocarcinoma

Period of Study: One and half years.

Sample Size: 50 operable, 50 inoperable, 50 normal population sample without any gastric ailment.

Study Design: Prospective observational.

Parameters to be Studied

a. Demographic characteristics of study population
b. Symptomatology of the patient
c. Examination findings of the patients
d. All blood investigations along with tumor markers & radiological findings.
e. Operability of the tumor
f. Outcome of the surgery & follow-up

Inclusion Criteria

All cases of gastric carcinoma attending study area within the mentioned time line.

Exclusion Criteria

Patient unwilling to take part in this study.

Plan for Analysis

a. Detailed History
b. Clinical Examination – requirements - Gloves
c. Patient Consent Form
d. Performa for Data Collection
e. Pathological tests- Hematological & Biochemical
f. Radiological tests - USG (W/A), CECT (W/A).

Study Tools and Technique

1. Preoperative 8 ml blood –1 ml in EDTA and 7 ml will be used to extract serum.
2. Postoperative 5 ml blood (7 days after operation).
3. Tumour tissue (from the tumour margin) & adjacent normal tissue (at least 3cm apart).

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4. Blood sample from healthy individual 10 ml to be used as control in the study.

RESULTS

A) Clinical & Demographic Details.

Analysis of the demographic characteristics of the study population.

Table 1: Age-wise distribution of the study population

Age Group (Years)	Number	Percentage
20-39	13	13.13
40-59	47	47.47
60-79	38	38.38
80-99	1	1.01

Table 2: Gender-wise distribution of the study population

Gender	Number	Percentage
Male	76	76.77
Female	23	23.23

Table 3: Distribution of population based on residence

Residence	Number	Percentage
Urban	8	8.79
Rural	91	91.92

Table 4: Distribution of population based on smoking habit

Smoking Habit	Number	Percentage
Smoker	56	56.57
Non-Smoker	43	43.43

Table 5: Distribution of lesions according to anatomical sites

Site	Number	Percentage
Body	18	18.18
Fundus	14	14.14
Pyloric Antrum	67	67.68

Table 6: Distribution of lesions according to histological classification

Histological Subtype	Number	Percentage
Diffuse	34	34.34
Intestinal	50	50.51
Mucinous	2	2.02
Uncharacterized	13	13.13

Table 7: Association of Demographic and Clinico-pathological Factors with the operability.

		Operable (n)	Inoperable (n)	p Value
Gender	Male	50	26	
	Female	15	08	0.959626
Age	<50	20	13	
	>50	45	21	0.4543
Histopathology	Intestinal	41	9	0.0042**
	Diffuse	18	16	

p-values were calculated using chi-square test of significance.

No statistically significant difference was found between two groups in terms of age and sex; implying that the two groups were comparable in terms of age and gender.

DISCUSSION

This prospective observational study performed for a study period of one and half years provides valuable demographic data regarding the Gastric adenocarcinoma.The study shows that male sex and rural population are important demographic factors that predisposed to gastric adenocarcinoma. Other vital findings includes, smoking, age group 40-59years, H.pylori infections also played role in etiopathogenesis of gastric adenocarcinoma.

CONCLUSION

The incidence of gastric adenocarcinoma was prevalent in

1. Male in age group 40- 59 years.
2. Rural population
3. Smokers
4. Pylori antrum was the predominantly affected area with intestinal histopathological type.

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