

Epidemiological Pattern of Oesophagealgastric Junction Tumour in Parts of Southern India

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Abstract

Objective: To analyse the symptomatology and clinical presentation of patients with esophagogastric junction growth.

Methods: Type of study: Descriptive study Type of analysis: Clinical data analysis done. The patients with GE junction tumors usually present with following complaints:

- Dysphagia
- Vomiting
- Loss of weight and appetite
- Hematemesis and melena
- Odynophagia
- GERD symptoms

These patients are admitted and evaluated. The evaluation process begins with careful history taking and clinical examination. Comorbid illness is encountered in each patient and evaluated accordingly.

Results: Male patients are more than females (M:F – 1.5 :1). This tumor is common in the 40-70 years of age with high incidence at 60-69 years age group. Siewert's type I tumor is common accounting for 43.85% of patients. The common presenting symptoms are dysphagia (77.19%), vomiting (63.15%) and weight loss (59.64%).

Keywords: Esophagogastric junction tumors, epidemiology

Introduction

During the last three decades significant changes occurs in epidemiological pattern of disease of this disease. Squamous cell carcinoma and adenocarcinoma are the most common types of primary esophageal malignancies. Although squamous cell carcinoma outnumbered adenocarcinoma, the rate of increase in adenocarcinoma is significantly greater than any other major malignancy.

Adenocarcinoma of the distal esophagus, once an unusual malignancy, is diagnosed with increasing frequency and now accounts for over 50 percent of esophageal cancers in our country. Nowadays, proximal stomach cancer prevalence is more than distal cancer.

Incidence of gastroesophageal adenocarcinoma is rising dramatically in past few decades. The reasons are controversial.

Possible queries:

1. True rising disease burden (or)

2. Result of over diagnosis or reclassification.

Pohl and Welch have taken into account the incidence, stage distribution and disease specific mortality of gastroesophageal adenocarcinoma and determined that true increase in the disease burden is the reason for epidemiological change and not due to over diagnosis or reclassification. Finally this result suggest that changes in the risk factors prevalence, specifically, GERD, obesity, or reduced H.pylori infection, might be possible explanation for the changing epidemiology.

Of deaths due to oncological causes, cancer of esophagus takes the sixth position in the world.¹⁵ Despite recent progress in the treatment, esophageal cancer remains high lethal malignancy. It represents 1% of all cancers and approximately 6% of the gastrointestinal malignancies. It is male predominance malignancy. It is three times more common in blacks than in white individuals.

The incidence of esophageal adenocarcinoma increases as age increases. Most of the patients are at the age of 55-60 years, when diagnosis is made. Portale et al, reported an increasing number of young patients with

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esophageal adenocarcinoma during the past decade. These patients presented with more advanced disease than older patients did.

There is notable epidemiological difference between esophageal squamous cell carcinoma and adenocarcinoma. Squamous cell carcinoma, being commonest esophageal tumor worldwide, adenocarcinoma incidence is extremely high in the recent past, especially in western counties. Adenocarcinoma is common in gastro esophageal reflux disease (GERD) patients whereas, squamous cell carcinoma is common in alcohol and tobacco consuming individuals.

The aim of this study is

- To analyse the symptomatology and clinical presentation of patients with esophagogastric junction growth
- To study upper gastrointestinal endoscopy findings and preoperative histopathological features

Methods

The patients with GE junction tumors usually present with following complaints:

- Dysphagia
- Vomiting
- Loss of weight and appetite
- Hemetemesis and melena
- Odynophagia
- GERD symptoms

These patients are admitted and evaluated. The evaluation process begins with careful history taking and clinical examination. Comorbid illness is encountered in each patient and evaluated accordingly.

Inclusion criteria

All patients diagnosed with oesophagogastric junction growth and admitted in our institution during the period of study.

Exclusion criteria

1. Patients with proximal gastric cancer not confined to GE junction.
2. Patients with oesophageal cancer not confined to GE junction.

Study type

This study was conducted in the Department of General surgery and Surgical Gastroenterology, Government Royapettah hospital attached to Government Kilpauk Medical College during the period of May 2010 to November 2012.

Type of study: Descriptive study

Type of analysis: Clinical data analysis done

Observation

Sex incidence

In our study, 34 patients are male and 23 are female patients. Male patients constitutes 59.64% and female patients constitutes 40.35%. Here the ratio incidence among male and female patients is 1.5:1

Sex	No. of patients	Percentage
Male	34	59.64%
Female	23	40.35%

In our study , there is clearly high male incidence as a whole among patients with OG junction growth. Of Siewert’s type, in type I there is proportionately high male predominance. There is equal incidence among males and females with type III tumors. In type II tumors, there is slightly high male predominance in our study.

Age Distribution

In our study, most of the patients are distributed between the age group 40 and 70 years of age. Among 57 patients, 42 patients fall under this age group. These patients constitutes 73.68% . Of this age group, the high incidence is seen in the 60-69 years age (36.84%). The lowest incidence is noted in 20-29 years age group.

Age Group	No of Patients	Percentage
20-29	1	1.72%
30-39	7	12.3%
40-49	12	21.05%
50-59	9	15.78%
60-69	21	36.84%
70-79	7	12.3%

Frequency of the Symptoms

The most common presenting symptoms in our study are dysphagia (77.19%) and vomiting (63.15%). The next common symptom is weight loss (59.64%) . The common symptoms as per literature are dysphagia and weight loss. In our study, dysphagia constitutes 77.19% and weight loss constitutes 59.64% and more or less corresponds to the literature.

Hemetemesis and melena are the next common symptoms constituting 35.08% and 24.56% of the patients in our study.

The reflux symptom such as retrosternal burning pain constitutes 29.82% in our study. Abdominal pain(12.28%) and odynophagia(8.77%) are the least common symptoms in our study.

Symptoms	Numbers	Percentage
Dysphagia	44	77.19%
Vomiting	36	63.15%

Weight loss	34	59.64%
Hemetemesis	20	35.08%
Melena	14	24.56%
Retrosternal pain	17	29.82%
Abdominal pain	7	12.28%
Odynophagia	5	8.77%

Risk Factors Distribution

The common risk factors encountered in our study are smoking (42.1%) and alcohol (42.1%). 17 of 57 patients in our study have GERD symptoms constituting 29.82%. Obesity as a risk factor constitutes 14.03% of patients in our study. There is significant percentage of patients without risk factors (29.82%).

Risk factors	Frequency
Smoking	24
Alcohol	24
GERD	17
Obesity	8
No risk	17

Discussion

In our study, 34 patients are male and 23 are female patients. Male patients constitutes 59.64% and female patients costitutes 40.35%. Here the ratio incidence among male and female patients is 1.5:1 .

J.Rudiger Siewert et al conducted Adenocarcinoma of Esophagogasteic junction ,Results of Surgical therapy Based on Anatomical/ Topogrphic classification in 1002 consecutive patients¹⁴. This study shows male:female ratio as 3.9:1.

On comparison, male predominance is seen in both studies.

Distribution of Siewert’s classification

Types	No. of Patients	Percentage
Type I	25	43.85%
Type II	14	24.56%
Type III	18	31.57%

The incidence of Siewert’s type I tumors is high (43.85%) in our study. Next comes type III tumors (31.57%) and subsequently type II (24.56%).

Sex Distribution of Siewert’s Classification

Sex	S I	S II	S III
Male	17	8	9
Female	8	6	9

In our study, there is clearly high male incidence as a whole among patients with OG junction growth. Of Siewert’s type, in type I there is proportionately high male predominance. There is equal incidence among males and females with type III tumors. In type II tumors, there is slightly high male predominance in our study.

J.Rudiger Siewert et al conducted Adenocarcinoma of Esophagogasteic junction ,Results of Surgical therapy Based on Anatomical/ Topogrphic classification in 1002 consecutive patients¹⁴. On comparing ,M:F ratio

Our study	Siewert et al study
Type I - 2.13: 1	9:1
Type II - 1.33: 1	5.4:1
Type III - 1:1	2:1

There is highest M:F ratio noted in S I type in both studies. This ratio is gradually decreasing in both studies in S II and S III type. Thus , male predominance is noted in all three types of tumor in decreasing order from S I to S III type.

In our study, most of the patients are distributed between the age group 40 and 70 years of age. Among 57 patients, 42 patients fall under this age group. These patients constitutes 73.68% . Of this age group, the high incidence is seen in the 60-69 years age (36.84%). The lowest incidence is noted in 20-29 years age group.

J.Rudiger Siewert et al conducted Adenocarcinoma of Esophagogasteic junction ,Results of Surgical therapy Based on Anatomical/ Topogrphic classification in 1002 consecutive patients¹⁴. This study shows the mean age as 61 years.

In our study, high incidence is noted in between 60 and 69 years. Siewert et al study shows the mean age as 61 years.This data supports our study findings.

The most common presenting symptoms in our study are dysphagia (77.19%) and vomiting (63.15%). The next common symptom is weight loss (59.64%). The common symptoms as per literature are dysphagia and weight loss. In our study, dysphagia constitutes 77.19% and weight loss constitutes 59.64% and more or less corresponds to the literature.

Hemetemesis and melena are the next common symptoms constituting 35.08% and 24.56% of the patients in our study.

The reflux symptom such as retrosternal burning pain constitutes 29.82% in our study. Abdominal pain(12.28%) and odynophagia(8.77%) are the least common symptoms in our study.

The common risk factors encountered in our study are smoking (42.1%) and alcohol (42.1%). 17 of 57 patients in our study have GERD symptoms constituting 29.82%. Obesity as a risk factor constitutes 14.03% of patients in our study. There is significant percentage of patients without risk factors (29.82%)

Conclusion

Male patients are more than females (M:F – 1.5 :1). This tumor is common in the 40-70 years of age with high incidence at 60-69 years age group. Siewert’s type I tumor is common accounting for 43.85% of patients. The common presenting symptoms are dysphagia(77.19%), vomiting (63.15%) and weight loss (59.64%).

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