



OESOPHAGEAL & GASTRIC CARCINOMA; SURGICAL MANAGEMENT - EXPERIENCE AT ISRA UNIVERSITY HOSPITAL HYDERABAD

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ABSTRACT... Objectives: To know the frequency of gastroesophageal carcinoma and its management at Isra University Hospital Hyderabad Sindh. **Study Design:** Descriptive, Prospective. **Place and Duration of Study:** Isra University Hospital Hyderabad during the period of January 2014 to January 2016. **Patient and Methods:** Fifty two patients with gastroesophageal malignancy were scrutinized for elective and emergency surgery according to the stage and tumor resectability & observed for postoperative complication rate. Data is prepared in SPSS version 17. **Inclusion Criteria:** Carcinoma of esophagus and stomach. **Exclusion Criteria:** Benign lesions of esophagus and stomach (Tuberculosis, Bouvet's syndrome, Band of Ladd's, Diaphragmatic Hernia, Phyto/Tricobezoar). Gastric outlet obstruction (GOO) caused by bilio pancreatic, retroperitoneal or abdominal wall mass. **Results:** Among fifty two patients 11(22%) were with carcinoma of esophagus and 41(78%) with carcinoma stomach causing GOO; accounting 38(73%) male & 14(27%) females with age range of 29-69 years. Major presenting complaints of carcinoma of esophagus were progressive dysphagia from solid to liquid with significant weight loss while history of hematemesis was found in only two patients. Carcinoma stomach mainly presented with symptoms of gastric outlet obstruction (GOO); partial or complete i.e. vomiting, fullness and epigastric mass with weight loss. Out of total 52 patients; 35 were biopsied and staged preoperatively while 17 patients could not be biopsied before surgery either because of inadequate tissue specimen or scope negotiation problem. However after surgery their biopsy was found out malignant. All such patients were optimized before surgery for correction of hemoglobin, electrolyte imbalance and nutritional support Feeding jejunostomy & gastrojejunostomy were mainly performed for carcinoma esophagus and stomach while for resectable tumors Ivor Lewis, McKeon or Billroth I or II were also performed according to the general patient condition and the local resectability of the tumor mass. Our post-operative complication rate was 26% and comprised nausea, vomiting, wound infection, and delayed gastric emptying which were treated conservatively. Our operative mortality was none. **Conclusion:** Most of our cases were in advanced stage of malignancy which was mainly dealt with Feeding jejunostomy & Gastrojejunostomy. However Esophagogastric intubation in advanced malignancy is the safe & effective alternative if available.

Key words: Carcinoma, esophagus, stomach, surgical treatment.

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INTRODUCTION

Esophageal adenocarcinoma has the highest incidence in UK, globally at up to 8.7 cases /100,000 of the population¹ with Caucasian male being the most commonly affected ethnic group.² Despite modern therapies, overall 5years survival is less than 25%.³ In an attempt to harmonize staging the latest AJCC/UICC included carcinoma of gastro esophageal junction with carcinoma of esophagus. This includes tumor arising from the

distal 5cm of the esophagus, the GEJ or cardia of the stomach within 5cm of the GEJ.⁴

Carcinoma esophagus (adenocarcinoma) is presented either as a result of denovo or after Barrette's esophagus and cause progressive dysphagia from solid to liquid and weight loss. Esophageal adenocarcinoma presents late as symptoms only manifest when tumors become large enough to cause dysphagia or pain.^{5,6}

Unfortunately the majority of esophageal adenocarcinoma has invaded through the esophageal wall at the time of diagnosis.⁷

Surgery remains the main stay of the treatment for resectable diseases but most patients in western countries present with locally advanced disease and 5 year survival rate with surgery alone are dismal at approximately 25%.⁸

Outcomes for esophageal adenocarcinoma are poor because 60-70% of patients present with late stage disease, too advanced for treatment with curative intent.⁹ This is partly due to the mechanically compliant esophageal anatomy which allow symptomless tumor expansion.¹⁰ Additionally tumor invasion and metastases are facilitated by the absence of outer serosal layer and the presence of rich lymphatic plexus and both depth and nodal metastases are prognostic.¹¹

In an attempt to improve outcome multimodal strategies have been investigated with variable results. The optimal management remains controversial and practices vary across the world.¹²

Carcinoma of stomach is the third leading cause of cancer related death and fifth most common malignancy worldwide.¹³

Malignant gastric outlet obstruction is commonly reported in 20% cases.¹⁴ It implies complete or incomplete obstruction of distal stomach, pylorus or proximal duodenum.

Traditionally malignant gastric outlet obstruction has been surgically treated by gastrojejunostomy (GJ).¹⁵ It is a less invasive surgery than gastrectomy & might nonetheless cause substantial trauma in patients with malignant GOO.¹³

In contrast an advanced approach is necessary for the treatment of advanced gastric cancer. Total gastrectomy with the exception of distal tumor that can be treated by subtotal gastrectomy is the procedure of choice.¹⁶

The prognosis after surgical treatment remains

poor. Potential values of neo adjuvant or adjuvant chemotherapy in gastric cancer studied in randomized controlled trials are still scarce and it remains uncertain which subgroup of patients should routinely undergo multimodal treatment.¹⁷

The need of adjuvant treatment is obvious but at present there is no such treatment of proven effectiveness. Promising results with preoperative chemotherapy which increases the R0 resection rate and intra or early postoperative intra peritoneal chemo hyperthermia to prevent peritoneal dissemination have been reported.¹⁸

Aim of my study is to know the frequency of gastroesophageal carcinoma and its management at Isra University Hospital Hyderabad Sindh.

MATERIAL AND METHODS

Study Design

Descriptive, Prospective study.

Place and Duration of Study

Isra University Hospital Hyderabad during the period of January 2014 to January 2016.

Patient and Methods

In Surgical Unit II at Isra University Hospital Hyderabad around fifty two (52) patients were admitted through OPD and emergency room. They all were scrutinized for elective or emergency surgery if needed. All patient's bio data, clinical presentation, staging, operative procedure and post-operative complications were recorded in the preset approved Performa. Data is prepared in SPSS version 17.

Inclusion Criteria

Carcinoma of esophagus and stomach.

Exclusion Criteria

Benign lesions of esophagus and stomach (Tuberculosis, Bourevet's syndrome, Band of Ladd's, Diaphragmatic Hernia, Phyto/Tricobezoar) & GOO caused by either bilio pancreatic, retroperitoneal or abdominal wall mass.

RESULTS

Among fifty two patients 11(22%) were with carcinoma of esophagus and 41(78%) with carcinoma stomach; accounting 38(73%) male & 14(27%) females with age range of 29-69 years. Major presenting complaints of carcinoma of esophagus were progressive dysphagia from solid to liquid with significant weight loss while history of hematemesis was found in only two patients. Carcinoma stomach mainly presented with symptoms of gastric outlet obstruction (GOO); partial or complete i.e. vomiting, fullness and epigastric mass with weight loss. Out of total 52 patients; 35 were biopsied and staged preoperatively while 17 patients could not be biopsied before surgery either because of inadequate tissue specimen or scope negotiation problem. However after surgery their biopsy was found out malignant. All such patients were optimized before surgery for correction of hemoglobin, electrolyte imbalance and nutritional support.

Age wise predilection of carcinoma esophagus and stomach are shown in Table-I.

Age	Sex	Carcinoma Esophagus 11(21.15%)	Carcinoma Stomach=41 (78.8%)
30-39 yrs	Male	2 (18%)	3 (7.3%)
	Female	2(18%)	1(2.4%)
40-49 yrs	Male	None	15(36%)
	Female	None	5(12%)
50-59 yrs	Male	3(39%)	10(24%)
	Female	1 (9%)	5(12%)
Above 60yrs	Male	3(39%)	2 (4.8%)
	Female	None	None

Table-I. Demography & frequency of Esophagus & Gastric Carcinoma (Total-52 Patients)

Palliative surgical procedures like feeding Jejunostomy and gastrojejunostomy (GJ) for carcinoma esophagus and stomach respectively were mainly performed while for resectable tumors Ivor Lewis, McKeon or Billroth I or II were also performed according to the general patient condition and the local resectability of the tumor mass.

Stage wise procedures are highlighted in Table II & III. After discharge all patients were sent oncology unit for adjuvant chemo radiotherapy. Our post-operative complication rate was 26% and comprised nausea, vomiting, wound infection, and delayed gastric emptying which were treated conservatively shown in Table: IV. Our operative mortality was none.

Total No: 11	Stage	Procedure Performed	Complication
5(45%)	IV	Feeding Jejunostomy	None
2(18%)	IV,II	Discharged on request	None
1(9%)	III	Mc Keown	None
1(9%)	III	Ivor Levis	None
2(18%)	III	Feeding Jejunostomy	None

Table-II. Procedures done for Carcinoma Esophagus 11(21.15%)

Total No: 41(78.8%)	Stage	Procedure Performed
4(9.7%)	II	Billroth II
3(7.3%)	II	Billroth I
7(17%)	I	Billroth I
16(39%)	III	Gastrojejunostomy
11(26%)	IV	Gastrojejunostomy

Table-III. Procedures done for Carcinoma Stomach 41(78.8%)

Postoperative Nausea , Vomiting	5(35.7%)
Wound Infection	3(21.4%)
Delayed Gastric Emptying	6(42.8%)

Table-IV. Complications after Gastric Surgery- Total Patients 14(26%)

DISCUSSION

Gastroesophageal malignancy remains a worldwide health problem because these tumor rank second in cause of cancer related death.¹⁹

Despite of multimodal treatment satisfactory outcome has not been established yet because of complex tumor biology.

Majority of our patients belonged from rural areas and came in their terminal stages of malignancy. Where tumor was either unresectable or if

resectable; due to their poor general condition surgery carried high operative risk.

Incidence of gastroesophageal cancer with male and female ratio was 2:1. Youngest, 29 years old female with ca esophagus treated with Ivor Lewis with uneventful post-operative recovery, survived only for 16 months. Another 35 years old male was operated for McKeown procedure lost his follow up soon after discharge. Rest of the patients with carcinoma esophagus with feeding jejunostomy didn't record his follow up after operation.

In agreement with other study the diagnosis of Gastroesophageal carcinoma was based on clinical presentation, CT scan & upper Gastro Intestinal Endoscopy.^{20,21} The reason for clinical diagnosis was mainly financial issues.

Contrary to our study which accounted 46% of gastrojejunostomy, study in Tanzania showed 61% of GJ procedures for unresectable gastric carcinoma.²²

Conventional GJ adequately relieves obstructive symptoms however incidence of delayed gastric emptying after surgery was significant 20-59% in other studies²³ but to us only 42.8% patient developed this complication.

Post-operative mortality after malignant gastric surgery varies from 18-24 % and after malignant esophageal surgery reported 5%^{24,23} while in our study no such operative mortality was seen in both cases.

Limitations in this study were the self-discharge & poor follow up visits of the patients, which were needed to be addressed specifically. As high frequency of gastroesophageal carcinoma seen in such remote area residents with comparatively lower socioeconomic status. And due to poverty they couldn't seek thorough early & complete treatment.

CONCLUSION

Most of our cases were in advanced stage of malignancy which was mainly dealt with Feeding

jejunostomy & Gastrojejunostomy. However Esophagogastric Intubation in advanced malignancy is the safe & effective alternative if available.

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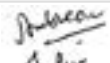
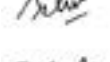

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AUTHORSHIP AND CONTRIBUTION DECLARATION

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2	Suhail Ahmed Soomro	Concept & Design	
3	Tek Chand Maheshwari	Revising article critically	
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