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Research Article

**STUDY TO KNOW THE MORTALITY AND MORBIDITY OF  
CARCINOMA OESOPHAGUS**<sup>1</sup>Dr. Hafsa Afzaal, <sup>2</sup>Dr. Yasmeen Kamboh, <sup>3</sup>Dr. Shahla Khanam<sup>1</sup>Allama Iqbal Medical College, Lahore<sup>2</sup>International University of Kyrgyzstan<sup>3</sup>Sheikh Zayed Medical College, Raheem Yar Khan**Abstract:****Objective:** To investigate the morbidity and mortality of carcinoma oesophagus.**Study design:** A case series.**Configuration and duration:** In the Surgical Unit II of Jinnah Hospital, Lahore for four year period from June 2014 to June 2018.**Methodology:** A total of 32 patients with carcinoma oesophagus were included in the study. All data were corrected prospectively. Patients with bronchial involvement were excluded from the study. The data were collected in a specially designed proforma.**Results:** Thirty-two carcinomas oesophagus were diagnosed and treated for a period of 4 years. The proportion of men and women was 1.2:1. There was dysphagia in 100%, weight loss in 75%, regurgitation and vomiting in 50% and 31.25% respectively, with pain on the upper part of the abdomen. Swallowing and endoscopy growth in barium was observed in 6 patients (18.7%) in the upper third of the esophagus, in the middle third 14 patients (43.7%), in the lower third 12 patients (37.5%). In histopathology, 60% of cases were reported as adenocarcinoma and 40% as squamous cell carcinoma. The patients were managed with different surgical procedures. Postoperative complications were 13.1% for thoracic infection, 12.5% for wound infection and 9.3% for anastomatic leakage 9.3%.**Conclusion:** Carcinoma Oesophagus has a poor prognosis. Early diagnosis, intensive care units and specialists in oesophagus surgery can reduce morbidity and mortality.**Key Words:** Complications, diagnosis, carcinoma oesophagus.**Corresponding author:****Dr. Hafsa Afzaal,**

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**INTRODUCTION:**

Oesophagus carcinoma is the ninth most common cancer in the world. It is a disease from mid to late adulthood and has a poor prognosis. The incidence of global oesophagus cancer is highly variable, ie 20 in the US per 100,000 and 100 per 100,000 in Great Britain, South Africa and China; It is the eighth most common cancer in men in Pakistan and the fifth in women. In Punjab it is the fourth most common cancer in both sexes. It ranks fourth in NWFP, and third in men and women. The risk of life of this cancer is 0.8% for males and 0.3% for females. The disease is spreading worldwide and appears to be due to factors such as excessive snuff consumption, betel nut, Paan, nasvar, alcohol dependence and gastroesophagus reflux. Barrett's esophagus is responsible for the more common adenocarcinoma in Western countries. Poor prognosis for oesophagus cancer results from its ability to spread; despite this understanding, surgical management did not improve the survival rate. Less than 25% of patients show long-term survival even after surgical resection. The majority of patients presented late stage due to lack of detection program. Early detection of high incidence and survival rate with surgical resection can be improved.

**MATERIALS AND METHODS:**

This case series study was taken place in the Surgical Unit II of Jinnah Hospital, Lahore for four year period from June 2014 to June 2018. Patients with swallowing difficulties, pain in the upper abdomen and weight loss pain was recorded. A detailed anamnesis and clinical examination were carried out by ENT specialists including ENT examination.

Other routine investigations such as blood, ESR, blood glucose, urea, serum creatinine, and chest X-ray were performed to see the site of the lesion in other specific studies were performed like barium swallow and were performed to see the esophagus and to know injury type and biopsy. Bronchoscopy was performed in cases in which the esophagus was in the middle third to exclude tumor bronchial involvement. 32 patients who were diagnosed with oesophagus cancer after the clinical examination of the history and all the investigations were included in the study, while those diagnosed with oesophagus cancer were included in the study; patients with a tumor with bronchi were also included in the study. Abdominal ultrasonography for secondary studies of the liver was performed. Thoracic computed tomography was performed in several patients, but in all patients was not performed due to lack of public sector facilities. After biopsy reports all patients were prepared for correction of fluid balance and total Nutrition parenteral accumulated anemia and electrolytes of nutritional status. Cardiac functions were evaluated by a cardiologist. The patient explained the informed consent of the surgical procedure included in the bypass feeding gastrostomy and withdrawn.

**RESULTS:**

The total number of patients was 32, of which 18 were male and 14 were female. Male to female ratio is 1.2:1. The mean age was 53.6 years. Histopathological reports revealed that 20 patients (62.5%) patients had adenocarcinoma and 12 (37.5%) were diagnosed with squamous cell carcinoma.

**Table I. Symptomatology**

Symptoms	No.	%
<b>Progressive Dysphagia</b>	<b>32</b>	<b>100</b>
<b>Weight loss (weakness)</b>	<b>24</b>	<b>75</b>
<b>Regurgitation &amp; Vomiting</b>	<b>16</b>	<b>50</b>
<b>Upper Abdominal Pain</b>	<b>10</b>	<b>31.25</b>

In the upper abdominal ultrasonography, multiple secondary pathologies were seen in 4 patients. Four of 32 patients were referred for chemotherapy and 28 were operated with different procedures.

**Table II. Site of lesion**

Site of lesion	Number	Percentage
Upper third	6	31.7
Middle third	14	43.7
Lower third	12	37.5

Operation Ivor Lewis in 16 patients 50%.

The abdominal thorax approach was 25% in 8 patients.

With McKeown procedure 4 patients treated 12.5%

After surgery, all patients were given chemotherapy. The follow-up was inadequate because most patients had no training and belonged to the distant areas, whereas 20 patients survived for more than a year and had a 1-year follow-up.

Complication	No.	%
Chest infection	5	13.1
Wound infection	4	12.5
Anastomotic leakage	3	9.3
Mortality	3	9.3

**Table III. Post-operative complications****DISCUSSION:**

Carcinoma of Oesophagus is one of the least studied and deadly cancers in the world. This is the sixth reason of death all over the world. Less than 20% of patients show long-term survival even after surgical resection. Surgical resection is the cornerstone of carcinoma oesophagus. Generally, it is a disease seen in the elderly with a poor prognosis. Middle-aged patients were also affected in this study, with a mean age of 53.6 years, younger than the Ries study, with a mean age of 67 years and 63 years. While the ratio of men and women was 1.2: 1 in this study, this rate was 3: 1 in Wang study. All our patients had 100%

dysphagia in MB Menke study and in Daly's study, 60%, 71%, and 71% has dysphagia. In 31% of the cases, the study was similar to the Wang study, 31% of the same symptoms had upper abdominal pain, and 7.5% of the patients with weight loss had more than the Enzinger study. The location of the tumor was 31% in the upper third of the esophagus, 43.7% in the middle third and 37.5% in the lower third, while the location of the Wang tumor was examined; Lower thirds were 52% and 32.5%. Histopathological examination showed that 62.5% of the tumors were adenocarcinoma and 37.5% were squamous carcinomas. Compared with the study of Wang,

where squamous carcinoma was 89%, higher and adenocarcinoma was 7.5%. Postoperative complications, ie 9.3% anastomotic leakage, 24% in Horstman and 22.5% in Triboulet study, were detected. While thoracic infection was 13.1% in this study, in Tanaka S study, Hirabayasahi, breast infection rate was 15.3%. Postoperative wound infection is 12.5%, which is higher than the Tew study.

### CONCLUSION:

Carcinoma Oesophagus is a common malignant tumor of the digestive tract, even in Pakistan and also in Punjab. It is the eighth most common tumor with high mortality and poor prognosis. Early diagnosis, intensive care units and oesophagus surgery may lead to morbidity and mortality.

### REFERENCES:

- Nag, P., O. P. Gurjar, V. Bhandari, K. L. Gupta, P. Bagdare, and H. Goyal. "Intraluminal brachytherapy boost following external beam radiotherapy with concurrent chemotherapy of oesophagus carcinoma: Results of a prospective observational study." *Cancer/Radiothérapie* 22, no. 2 (2018): 163-166.
- Lin, De-Chen, Huy Q. Dinh, Jian-Jun Xie, Anand Mayakonda, Tiago Chedraoui Silva, Yan-Yi Jiang, Ling-Wen Ding et al. "Identification of distinct mutational patterns and new driver genes in oesophageal squamous cell carcinomas and adenocarcinomas." *Gut* 67, no. 10 (2018): 1769-1779.
- Jivan, Rupal, Jade Peres, Leonard Howard Damelin, Reubina Wadee, Robin Bruce Veale, Sharon Prince, and Demetra Mavri-Damelin. "Disulfiram with or without metformin inhibits oesophageal squamous cell carcinoma in vivo." *Cancer letters* 417 (2018): 1-10.
- Pasternack, H., Fassunke, J., Plum, P.S., Chon, S.H., Hescheler, D.A., Gassa, A., Merkelbach-Bruse, S., Bruns, C.J., Perner, S., Hallek, M. and Büttner, R., 2018. Somatic alterations in circulating cell-free DNA of oesophageal carcinoma patients during primary staging are indicative for post-surgical tumour recurrence. *Scientific reports*, 8(1), p.14941.
- Effenev R, Shaw T, Burmeister BH, Burmeister E, Harvey J, Mai GT, Thomas J, Barbour AP, Smithers BM, Pryor DI. Patterns of Failure Following Dose-escalated Chemoradiotherapy for Fluorodeoxyglucose Positron Emission Tomography Staged Squamous Cell Carcinoma of the Oesophagus. *Clinical Oncology*. 2018 Oct 1;30(10):642-9.
- Drummond, R. J., D. G. Vass, K. Robertson, C. Sharp, and S. Gibson. "Comparison of endoscopic laser therapy and self expanding metal stents for palliation in patients with non-resectable oesophageal carcinoma." *The Surgeon* 16, no. 3 (2018): 137-140.
- Wang, Yichun, Liyang Zhu, Wanli Xia, Liming Wu, and Fan Wang. "The impact of adjuvant therapies on patient survival and the recurrence patterns for resected stage IIa–IVa lower thoracic oesophageal squamous cell carcinoma." *World journal of surgical oncology* 16, no. 1 (2018): 216.
- Zhang, C., Xiang, T., Li, S., Ye, L., Feng, Y., Pei, L., Li, L., Wang, X., Sun, R., Tao, Q. and Ren, G., 2018. The novel 19q13 KRAB zinc-finger tumour suppressor ZNF382 is frequently methylated in oesophageal squamous cell carcinoma and antagonises Wnt/ $\beta$ -catenin signalling. *Cell death & disease*, 9(5), p.573.
- Zhang, Baozhu, Zhao Zhang, Lei Li, Yan-Ru Qin, Haibo Liu, Chen Jiang, Ting-Ting Zeng et al. "TSPAN15 interacts with BTRC to promote oesophageal squamous cell carcinoma metastasis via activating NF- $\kappa$ B signaling." *Nature communications* 9, no. 1 (2018): 1423.
- Li, Yimin, Frank Hofheinz, Christian Furth, Chen Lili, Wu Hua, Pirus Ghadjar, and Sebastian Zschaecck. "Increased evidence for the prognostic value of FDG uptake on late-treatment PET in non-tumour-affected oesophagus in irradiated patients with oesophageal carcinoma." *European journal of nuclear medicine and molecular imaging* (2018): 1-10.
- Wu, Lan, Jing Ou, Tian-wu Chen, Rui Li, Xiaoming Zhang, Yan-li Chen, Yu Jiang, Jian-qiong Yang, and Jin-ming Cao. "Tumour volume of resectable oesophageal squamous cell carcinoma measured with MRI correlates well with T category and lymphatic metastasis." *European radiology* (2018): 1-9.
- Wen, Jiaxin, Matthew Bedford, Ruksana Begum, Harriet Mitchell, James Hodson, John Whiting, and Ewen Griffiths. "The value of inflammation based prognostic scores in patients undergoing surgical resection for oesophageal and gastric carcinoma." *Journal of surgical oncology* (2018).
- Alsina, M., Rivera, F., Ramos, F.J., Galán, M., López, R., García-Alfonso, P., Alés-Martinez, J.E., Queralt, B., Antón, A., Carrato, A. and Grávalos, C., 2018. A phase II Study Evaluating Combined Neoadjuvant Cetuximab and Chemotherapy Followed by Chemoradiotherapy and Concomitant Cetuximab in Locoregional Oesophageal Cancer Patients. *Targeted oncology*, 13(1), pp.69-78.

14. Nowee ME, Voncken FE, Kotte AN, Goense L, van Rossum PS, van Lier AL, Heijmink SW, Aleman BM, Nijkamp J, Meijer GJ, Lips IM. Gross tumour delineation on Computed Tomography and Positron Emission Tomography-Computed Tomography in oesophageal cancer: a nationwide study. *Clinical and Translational Radiation Oncology*. 2018 Oct 26.
15. Mokoena, T., J. G. M. Smit, V. O. Karusseit, C. M. Dorfling, and E. J. van Rensburg. "Tylosis associated with squamous cell carcinoma of the oesophagus (TOC): Report of an African family with a novel RHBDF2 variant." *Clinical genetics* 93, no. 5 (2018): 1114-1116.