ONE YEAR EXPERIENCE OF TREATING CARCINOMA OESOPHAGUS

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ABSTRACT

Objective: To audit one year of Oesophageal workload in a Cardiothoracic unit

Material and Methods: This study was conducted at Cardiothoracic unit Lady Reading hospital peshawer from 1st January to 31st December 2003, and it comprised of 146 patients presenting with spontaneous dysphagia. Barium swallow and endoscopy/biopsy were done for diagnoses; C.T scan was used to stage the disease and offer possible treatment.

Results: Ca oesophagus constituted 25.84% of total operative work load in one year. Disease was more common in males; mean age at presentation was 56 years. High incidence was found in Afghan nationals. The common presenting clinical features were dysphagia and weight loss. Barium swallow detected the abnormality in almost all advanced cases. C.T scan was found accurate in(36/41) 87.80% cases in staging the disease. In majority of cases disease arose in the lower 2/3 of the organ and most frequently it was sqamous cell carcinoma.(105/146) 71.91% were inoperable; surgery offered good results in operable cases.

Conclusion: Carcinoma oesophagus is not uncommon in this part of the world; Efforts should be made to diagnose the disease early, as the treatment is possible and give good results in the early stage of disease.

Key words: Carcinoma oesophagus, surgery of oesophagus.

INTRODUCTION

Oesophageal carcinoma is one of the dismal visceral malignancies with dismal prognosis. Much work has been done by surgeons to improve the results of resection. S Torek performed the first successful oesophagectomy in 1913[1]. Worldwide in untreated patients the one year survival is < 10%[2].

The disease is 20-30 times more common in China, Iran, and South Africa[2]. The exact aetiology is not known, but is currently thought to be multifactorial. The important factors in its pathogenesis appear to be excess alcohol intake, smoking, vitamins/ trace, elements deficiency, infection with human papilloma virus and nitrosamines[3]. In addition, there are some predisposing conditions, which are associated with high incidence Ca oesophagus. This include; tylosis type A, Plummer Vinson syndrom, Barret's oesophagus, achalasia, and previous carcinoma of the head and neck[4].

Three types of investigations are required in its management i.e. diagnostic, staging and preoperative assessment[5]. Treatment depends upon the stage of disease and general status of the patient and may be curative or palliative[6].

The objective of this study was to; Estimate the total work load due to cancer oesophagus patients, to know the age and sex incidence, to know the frequnency of the disease in both local and Afghan nationals, to measure the rate of operability and to acknowledge postoperative morbidity and mortility.

MATERIAL AND METHODS

The study extended over a period of one year from 1st Jan to 31st Dec 2003. It comprised of 146 patients presenting with spontaneous dysphagia.

Barium swallow, endoscopy /biopsy / histology were used for diagnosis. C.T thorax and upper abdomen with oral and I.V contrast was used for staging the tumour.

General assessment was done by routine haematological and biochemical investigation.

Criteria for dividing oesophagus into three portions was worked out by the following rule;

Upper oesophagus	between cricopharynges and carina
Middle oesophagus	between carina and inferior pulmonary vein
Lower oesophagus	between inferior pulmonary vein and G.O junction

Selection criteria for curative resection was set out by the following parameters.

(1) Reasonable nutritional status.
(2) Absence of associated co-morbid factors.
(3) Absence of hoarseness.
(4) Absence of supraclavicular lymphadenopathy .
(5) No tracheo-oesophageal fistula.
(6) No metastatic disease.
(7) Clear planes between oesphagus and mediastinal structures.
(8) No palpable intraabdominal mass.
(9) No previous gastric surgery.

Surgical technique used for curative resection was Birmingham approach. Other techniques which are in use are:

- Mckewon
- Ivorlewis
- Oringer
- And combination of open and VAT approach.

RESULTS

Ca oesophagus constitutes (146/565) 25.84% of total cardiothoracic operative workload in one year. Male patients were 95 (65%) and female were 51(35%). Age was between 25—80 years and the mean age was 56 years. Amongst the 146 patients, 106(72.60%) were Afghani and 40(27.39%) Pakistani nationals.

Presenting clinical features in descending order of frequency were; dysphagia (146/146) 100%, weight loss (131/146) 89.72%, regurgitation (77/146) 52.73% and pain on swallowing (31/146) 21.23%.

Barium swallow detected the abnormality in almost all cases, showing stricture with proximal dilatation. In (83/146) 56.84% cases barium swallow was diagnostic showing irregularity of the stricture with shouldering effect and in few cases axises deviation of oesophagus.

Oesophagoscopy and biopsy was performed in all cases; In 145 (99.31%) cases, the procedure was diagnostic. In one case (0.69%) the above two investigations gave false -ve result. This case was diagnosed provisionally by C.T scan and confirmed by histology, of the specimen.

The most common site of involvement was middle 1/3 oesophagus (76/146) 52.02%, followed by lower 1/3 (61/146) 41.78%. The disease was least common in the upper 1/3 of the organ (9/146) 6.16%.

In (125/146) 85.62 % cases the tumour was squamous cell in origin, and in (21/146) 14.38% cases, it was adenocarcinoma in origin.

T4 lesion was found in (86/146) 58.90% and T3 disease in (36/146) 24.65 % cases. There was no single case of T1 or T2 disease. At surgery C.T was found accurate in (36/41) 87.80% cases, while in (5/41) 12.19% it gave false negative results.

Amongst 146 patients, (105) 71.91% were inoperable; 55.47% (81/146) due to T4 disease, 5.47% (8/146) due to liver metastases and 10.95% (16/146) due to associated co-morbidity/sever malnutrition.

Curative surgery was attempted on (41/146) 28.08% cases. In (36/41) 87.80% patients the tumour was found resectable and in (5/41) 12.19% irresectable. In three cases, the irresectability was due to T4 disease and in two cases it was due to liver metastasis, which had been missed on CT and ultrasound.

Palliative procedures were performed in (110/146) 75.34% cases. They comprised of dilatation only in (101/110) 91.81%, M.B intubations in (2/110) 1.8% and feeding jejunostomy (5/110) 4.54% cases, feeding gastrostomy in (2/110) 1.8%.All followed by radiotherapy.

Morbidity of palliative procedure was 7.4%; the only complication was oesophageal perforation, which occurred in eight cases out of 107 who under went oesophageal dilatation.

Postoperative morbidity of oesophagectomy was 36.58%; It included, wound infection in (5/41) 12.19%, three minor and in one case wound infection was deep.

Chest infection	(9/41) 21.95%
Hoarseness	(6/41) 14.63%
Gastric stasis	(5/41) 13.88%, in one case it was severe but improved with cisapride.

Jejunostomy tube dislodgement (1/41) 2.4%, requiring reoperation for replacement of tube.

Anastomotic leakage occurred in none of oesophagectomy patient.

Postoprative mortality of oesophagectomy was (2/36) 4.84%. In one case, the cause was tracheal tear, which was repaired, but the patient died on 7th day due to pulmonary failure. The second patient suddenly died on fifth post op day. The cause of death could not be ascertained.. However pulmonary embolism or myocardial infarction could be the possibility..

In the follow up two further patients died, one in 4th month due to radiation pneumonitis and the second one in 7th month due to development of malignant ascities.

DISCUSSION

Carcinoma of the oesophagus is a distressing malignant disorder; When left untreated it causes miserable death due malnutrition, inhalation pneumonitis, tracheo-oesophageal fistula , with one year survival rate less than 10% in untreated cases[7].

The disease is more common in males and in majority of cases it occurs in 5th and 6th decade of life[8], as in our study.

In 80% cases the disease involve the lower 2/3 of the organ and in majority of cases it is squamous cell carcinoma[1], which is similar to our study.

The internationally quoted incidence of cancer for upper 1/3 oesophagus is 20%[6]. This is in mark contrast to our study where we found the disease incidence in this region close to figure 6%. The reason for this low figure could be that majority of tumour in this area are referred to ENT units. The disease is more common in China, Iran and South Africa[2], Although there is no statistical data available about the magnitude of problem in Afghananistan, but from the frequency with which the Afghani patients presenting with this malignancy, it would not be an exaggeration to state that carcinoma oesophagus is not an uncommon disease in Afghanistan.

Symptomatology is the same in almost all cases i.e. dysphagia, weight loss, regurgitation, and pain on swallowing; signs are negative in majority except poor nutritional status[8]. Barium swallow is abnormal in majority of advanced cases, as in ours study, but yield of this investigation is low in early mucosal and submucosal lesion[9]. Early cases are best detected by oesophagoscopy[10]; Therefore it should be a routine that any patient presenting with swallowing problem should have an endoscopy irrespective of barium findings lest not to miss cancer at early stage.

Intraluminal ultrasound is best in loco regional staging as compared to the C.T \scan [11], but this modality of investigation is still not available in our setting and for staging we still relay on C.T scan.

Diagnosis of the disease is depending upon awareness of the disorder and appropriate investigations[10]. Prognosis of disease depends upon stage of presentation of carcinoma[12], best results are obtained with surgery particularly in early stage disease, where a 5-year survival of 60%-80% have been achieved[13]. Prognosis of loco regionally advanced disease is variable, but on the whole, it is poor, no matter what type of modality of treatment are used [14]. Metastatic disease carries worse prognosis with one-year survival close to zero[10].

The aim of palliation is to relieve dysphagia. A variety of modalities are available for this purpose, which range from dilatation to intubations, laser reboring, and photodynamic therapy ect[15]. The best way of palliation is with pulsion intubation with self expanding metallic stents[16].

With curative surgery, best results are obtained with subtotal oesophagectomy, which has high rate of tumour free margin and low rates of tumour recurrence at anastomotic site[17], as in ours, study.

Complications of oesophagectomy are high, but are preventable and treatable[10]. The postoperative mortality of oesophagectomy is low in safe hands, therefore justifying this procedure in Ca oesophagus particularly in the early resectable stage[17].

CONCLUSION

Carcinoma oesophagus is not rare in this part of the world. Majority of the patients are from Afghanistan or area of Pakistan close to Pak-Afghan border. Good results can be achieved in early stage disease and with surgery.

Picking the disease at early stage requires, awareness of the disease, appropriate referral, relevant investigations and mass screening in high-risk area and high-risk population[10].

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