CLINICAL STUDY OF CARCINOMA OF OESOPHAGUS

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ABSTRACT: There is no cancer that is common anywhere that is not are somewhere else. This applied to oesophageal carcinoma particularly to its dramatic feature in varying incidence in different parts of the world. The aetiology of this disease is still an enigma, so many factors being responsible for causation of the disease. The epidemiological study in high incidence are like iran, north west china, Afghanistan showed the different factor were responsible for the prevalence of the disease.in our country also, the frequency with it occurs varies in diffent parts. The average life expectancy of untreated patients with carcinoma oesophagus is only a few months to a maximum of 1 year. By the time the patient presents with dysphagia, usually the disease has extended beyond the curable limits. This is particularly due to the close relationship to other vital mediastinal structures. Nevertheless due to the advent of new techniques in radiology early detection of the disease is now possible. There has been a change in treatment modalities also in the form newer surgical techniques, radiotherapy and chemotherapy. There has been an increase in prognostic index in recent years. As this disease is common in this part of the country, an attempt has been made to analyse the various aetiological factors, clinicopathological correlation and various treatment modalities. All these cases were studied carefully, thoroughly investigated and treated appropriately. Relevant literature was reviewed and an attempt of comparative study also has been done. .

KEYWORDS: Carcinama Oesophagus, Chemaprophylaxis.

INTRODUCTION: AIM OF THE STUDY: Incidence and analysis of certain aetiological factors in the causation of carcinoma of oesophagus among the patient population attending these referral hospital BTGH Gulbarga. To find out the relative incidence of presentation among our patients. To study the incidence of histipathological type of carcinoma in relation to the site of involvement in the oesophagus. To study the diagnostic investigation modalities being preferred by the treating clinicians and assess their relative accurancy. To assess the various treatment modalities being offered at this renowned referrel centre with particular reference to the histopathological type and site of involvement.

MATERIALS AND METHODS: This study on carcinoma oesophagus includes 125 patients who were admitted in MR medical college govt general hospital and Basveshwar teaching and general hospital Gulbarga

The relevant details of individual cases were recorded in a proforma, which contains history, physical findings, laboratory data, specific diagnostic tests and modality of treatment undertaken

All the cases were thoroughly investigated. Chest xray was taken in all cases to rule out any associated diseases. Endoscopy was done in all cases to locate the exact site of tumor, its extension and more important to get a histological confirmation. This was the main modality adopted. Endoscopy was done in all cases irrespective of barium study. Bronchoscopy was done in some of the cases of upper and middle third tumors to find out tracheal and mediastinal involvement.

Ultrasonography of the abdomen was also done to assess the abdominal metastasis of liver and lymph node

CT scan was done in few cases. CT scan being noninvasive and accurate in finding the lesions which are not large enough to be detected by ultrasound. A thorough investigation was done to find out any other alignments associated with carcinoma oesophagus

Treatment was planned taking into consideration of the site of tumor, operability and general condition of the patient. In the treatment plan, restoration of ability to swallow was the primary aim. Once the definite treatment is started, patient was monitored carefully to detect early signs of complications and its management. On discharge patients were asked to come for periodic review atleast once a month.

OBSERVATION: Analysis of 124 cases were done in detail. The actual incidence of carcinoma oesophagus in this hospital constitutes 4-4.5% of all cancer cases. This is the fourth commonest site of malignancy encountered in this hospital, other being oral cancers, carcinoma cervix and carcinoma breast.

The influence of certain etiological factors in the causation of carcinoma in this population is studied.

AGE INTERVAL	NUMBER	PERCENT		
10-20	1	0.8%		
21-30	2	1.6%		
31-40	5	4%		
41-50	27	21.6%		
51-60	49	39.2%		
61-70	31	24.8%		
71-80	9	7.2%		
81-90	1	0.8%		
INFLUENCE OF AGE				

sex	Number	Percent		
Male	84	67.2		
Female	32.86			
INFLUENCE ON SEX				

The male female ratio is 2:1.

Three main habits which influence the causation of disease is studied.

Habits	Number	Percent			
Smoking	57	46%			
Alcohol	39	31%			
Pan chewing	68	54%			
Snuff 15 12%					
AETIOLOGICAL FACTORS					

Pan chewing includes both the male and females

The relative incidence of the mode of presentations of the disease is shown below:

SYMPTOMS	NUMBER	PERCENT
Dysphagia	115	92%
Significant weight loss	72	58
Loss of appetite	59	47
Heart burn	55	44
vomiting	48	38
Pain in the Epigastrium	33	26
Lymph nodes in the neck	29	23
regugitation	10	8
others	20	16
MODES OF PRE		

A study in relation between blood groups and carcinoma oesophagus was also done

BLOOD GROUP	NUMBER	PERCENT
B POSITIVE	39	31
A POSITIVE	36	29
O POSITIVE	34	27
AB POSITIVE	16	13
RH NEGATIVE	14	11.2

BLOOD GROUP AND CARCINOMA OESOPHAGUS

	Number	Percent	Well Differentiation	Moderately Differentiation	Poorly Differentiation
Squamous cell carcinoma	59	48.0	14	32	13
Adeno carcinoma	2	1	0	1	1
MIDDLE THIRD OESOPHAGUS CARCINOMA: 61 CASES					

Well **Moderately Poorly** NUMBER **Percent** differentiation differentiation differentiation Squamous cell 9 9 32 25.6 14 carcinoma Adeno 3 12.0 4 8 15 carcinoma LOWER THIRD OESOPHAGEAL CARCINOMA: 47 CASES

The treatment modality offered approximately depends upon the site of the tumor, histopathology and cellular differentiation. Treatment consists of both curative and palliative. Two modalities are commonly used: surgery (Curative and palliative and radiotherapy).

Most of the cases with upper third lesions and middle third lesions were referred for radiotherapy to peripheral cancer institute, Gulbarga for favour of radiotherapy and for the follow up Surgery:

Upper one third: 47 cases, out of which 20 cases were subjected for resection and anastomosis and 27 were subjected for feeding gastrostomy and jejunostomy.

Out of 20 operated cases 8 cases were involving the lower third of the oesophagus and 12 cases were involving the lower end of oesophagus and stomach.

In all cases pyloromyotomy was done to facilitate the drainage of the stomach.

All the cut edges of the specimen were subjected for frozen section biopsy.

Anastomosis was done in two layers for all cases.

Out of 27 inoperable cases, metastasis in liver with fixity to the posterior abdomninal wall in 7 cases

Secondaries with ascites in 10 cases.

Tumor was fixed posterior abdominal wall in 5 cases.

Involvement of celiac group of lymph nodes with secondaries in liver and fixity of tumor in 5 cases.

Feeding gastrostomy was done in 17 cases and feeding jejunostomy was done in 10 cases. Post-operative complications:

Out of 20 cases 4 cases had anastomotic leak, out of which 2 cases had mild leak and treated conservatively;

2 cases of pleural effusion was aspirated

2 cases of pneumonitis were treated by antibiotics

3 cases had wound infection treated with antibiotics

Medial and upper third – subjected for radiotherapy

DISCUSSION: Incidence of carcinoma oesophagus in our country varies in different parts. In this series incidence is reported to be 4-4.2% of all cancer cases treated in this hospital.¹. Baruah in 1979 recorded the frequency rate of 9.8% in Assam. In Britain from 2-5%. Higher incidence is reported from Russia and Afghanistan 6-8%.².³

A higher incidence of disease was found in males in comparison with females⁴. The male to female ratio is 2:1. But some parts of the country showed higher incidence ratio. In Europe also higher incidence among males are reported except in finland where there is a marginal increase in female population

There are three main habitual factors namely: smoking, alcohol and pan chewing relevant in causation of carcinoma of oesophagus, in our study betal nut chewing with or without tobacco constituting of 54% appears to be a common factor. The next line in causation of carcinoma oesophagus in our study was smoking which constitutes abt 46% and the next is alcohol intake which constitutes 31%. 5,6,7

Dysphagia is found to be most common presenting symptom. It constitutes 92%.significant weight loss noted in 58% of our cases which is not common in western countres.47% of our patients presented with history of loss of appetite and 44%complained of heart burn. 23% of our study had lymph node involvement in the neck, it is high when compared to western series, thereby showing that patients seek medical advice only in late stages in our country.

	Number	Well	Moderate	Poorly differentiated		
Upper third	17	4	8	5		
Middle third	32	14	32	13		
Lower third	59	9	14	9		
Total 108 27 54 27						
SQUAMOUS CELL CARCINOMA OF OESOPHAGUS						

	Number	Well	Moderate	Poorly differentiated
Upper third	0	0	0	0
Middle third	2	0	1	1
Lower third	15	4	8	3
Total	17	4	9	4
ADENO CARCINOMA OESOPHAGUS				

Squamous cell carcinoma was the commonest pathological type in our study. Nearly all the upper third and middle third lesions were Squamous cell carcinoma and majority were of moderately differentiated type as shown in the above table

In lower third tumours 65% were Squamous cell origin and the rest were adeno carcinomas. In some of the western series higher incidence of adencarcinoma has been reported.

The modalities of treatment were approximately used depending upon the tumous site $^{8,9,\,10,11}$, pathological type and general condition of the patient for tumours of upper third patients were reffered to peripheral cancer institute

In our study lower third growths were found to be common (48.6%). nearly all of them were found to be of Squamous cell in origin. the main modality adopted was radio therapy for majority of our patients reported to hospital with metastasis in liver and abdominal lymphnodes.

Curative surgery was done in lower third of lesions. And main palliative treatment followed was irradiation and for a new cases palliative chemotherapy done.

In our series, curative surgery was offered in 20 cases and palliative surgery for 27 cases in lower third tumours immediate post-operative period we lost 2 patients and 3 patients and stormy post-operative period, who were adequately treated and discharged in good health. Rest of the patients had a smooth post-operative period. In 28 patients who had irresctable growth with multiple secondaries palliative gastrostomy or jejunostomy was done

In patients who had inoperable carcinoma oesophagus who were not willing for radiotherapy, palliative chemotherapy was given. Chemotherapeutic drugs used includes Methotrexate, Cyclophosphamide, 5- flurouracil and cis platinum. These drugs are used either in combination or individually depending on the general condition of the patient.

CONCLUSION: The incidence of carcinoma oesophagus appears to be 5 to 6% of all cancer cases admitted in this hospital (M. R. Medical College)

Most common age group was between 51 to 60 yrs .average age in males is 59 years and female is 51 years.the male female ratio is 2:1.

Pan chewing (betal nut) along with or without tobacco was the most common causative factor associated in our patients.

Dysphagia was the most common mode of presentation.

Lower third oesophagus the commonest site of involment of carcinoma. Sqamous cell carcinomas the predominant type of malignancy and few adenocarcinoma

Endoscopy was the commonly used modality for diagnosis of the lesion

Surgery was the commonly used mode of treatment in our hospital for lower 1/3rd lesions

Feeding gastrostomy and jejunostomy were the most commonly used palliative methods used in advanced carcinoma at our centre.

Palliativre chemotherapy was given for advanced carcinomas and radiotherapy for middle $1/3^{rd}$ and lower $1/3^{rd}$ cases.

BIBLIOGRAPHY:

- 1. Czerny Wangesteen: cancer of the oesophagus and stomach 2nd edition. American cancer society, 1956.
- 2. Torek: the first successful case of resection of the thoracic oesophageal carcinoma. sug. gynac. obst.16:614, 1913.
- 3. Jussawalla and Gangadharan: epidemiological study in India. Ind.j.surg.vol.41:437, 1979.
- 4. Bonosree c. deka: study of carcinoma Pesophagus in north Karnataka. Ind. j .cancer vol.15:23-27, 1978.
- 5. Ashely D: journal of medical genetics 6:70, 1969.
- 6. Howel-evans: carcinoma oesophagus with Tylosis a study in two Failies. Br. Journal in medicine 27:413-429, 1958.
- 7. Simons: immunogenetic aspects of carcinoma oesophagus, cancer: 36: 786: 1973.
- 8. Desai P. B. Symposium on cancer problems in India. B. J. Medical College, Poona 1975.
- 9. Wynder E.C. and bross: a study of aetiological factors in cancer oesophagus cancer: 14-389, 1961.
- 10. Shanta and Krishnamoorthy: Role of epidemiologic factors in ca oesophagus. Ind. j. can 12-115, 1965.
- 11. Allison and Johnstu: Barretts ulcer and adeno carcinoma, Am. J. Path, 86-313, 1985.

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