



CARCINOMA OF TONGUE - RETROSPECTIVE ANALYSIS OF CLINICAL FEATURES AND MANAGEMENT

General Surgery

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ABSTRACT

Objective: Tongue is the commonest site of oral carcinoma. The purpose of this study is to analyse various stages of presentation of carcinoma tongue, symptomatology and the risk factors.

Material and methods: Retrospective descriptive study of 92 patients who are admitted in Mediciti institute of medical sciences from 2006-2016 are analysed.

Results: In this study the incidence of carcinoma of tongue is more common in males in 6th decade with the mean age is 62.3 and male to female ratio is 1.96:1.

KEYWORDS

carcinoma of tongue, squamous cell carcinoma, elective neck dissection.

Introduction :

Carcinoma of tongue is one of the commonest carcinoma of oral cavity in India with the incidence rate of 9.4/1,00,000/year^[1]. The incidence varies with the age, sex and addictions. Carcinoma of tongue is more prevalent in India due to high incidence of tobacco addiction, smoking, alcoholism, dental sepsis and other neglected dental irregularities like sharp tooth. The common type of carcinoma is predominantly squamous cell carcinoma^[2]. The standardized incidence is 6.6/1,00,000 in men and 2.9/1,00,000 in women^[3]. The survival rate of oral cancer is only upto 30% in developing countries whereas 54% in developed countries^[4]. The reason for poor survival rate in developing countries is due to delayed presentation with advanced stage of disease and poor compliance to treatment. The treatment includes surgery with elective neck dissection and chemo-radiation^[5]. The treatment leads to lot of morbidity as tongue is essential in swallowing, speech and breathing. The present study gives overall incidence of Carcinoma of tongue in our tertiary hospital.

Material and methods:

The study is retrospective descriptive study analyzing clinico-epidemiological data of 92 patients admitted in Mediciti institute of medical sciences during the period of 2006-2016. The data is analysed for peak age incidence, gender preponderance, most common site of presentation, stage of disease, addictions and type of carcinoma.

Results :

Out of 92 cases admitted with diagnosis of carcinoma of tongue over a period of 10 years i.e., from 2006-2016 the mean age of presentation is 62.3 ranging from 30-80yrs. Most cases are reported in 6th decade with male to female ratio 1.96:1. Majority of the cases involved lateral side of the anterior 2/3rd of tongue in 73 cases with 67.16%, right lateral seen in 34 cases with 31.28% and left lateral seen in 37 cases with 34.04% and 2 cases involving tip of the tongue with 1.84% and around 5% crossing the midline. Lesions involving posterior 1/3rd of tongue was seen in 21% of cases (19 cases) which present primarily with dysphagia 40% of cases and bilateral neck nodes 60% of cases. In carcinomas of anterior 2/3rd of tongue neck nodes are palpable in 48% of cases (35 cases). Stage 1 lesion is seen in 2 cases with 1.84%, stage 2 in 28 cases with 25.76%, stage 3 is seen in 38 cases with 34.96% and stage 4 is seen in 24 cases with 22.08%. Type of carcinoma seen is squamous cell carcinoma seen in 87 cases with 80.04%, verrucous carcinoma seen in 2 cases with 1.84%, muco-epidermoid carcinoma case seen in 2 cases with 1.84% and malignant fibrous histiocytoma seen in 1 case with 9.2%. Of 92 cases 2 cases underwent wedge-resection, 28 cases underwent hemi-glossectomy followed by supra-omohyoid block dissection, 38 cases underwent hemi-glossectomy followed by supra-omohyoid block followed by chemo-radiation and 24 cases underwent radical excision with hemi-mandibulectomy and reconstruction with PMMC flap.

Table 1: age distribution of carcinoma of tongue

Age distribution (yrs)	No. of cases	Percentage (%)
31-40	2	1.84
41-50	16	14.72
51-60	26	23.92
61-70	34	31.28
71-80	12	11.04
81-90	2	1.84

Table 2: Sex distribution of carcinoma tongue

Sex distribution	No. of cases	Percentage
Male	61	56.12
Female	31	28.52

Table 3: Location of carcinoma of tongue

Site of carcinoma	No. of cases	Percentage (%)
Anterior 2/3 rd of tongue	73	67.16
Right lateral	34	31.28
Left lateral	37	34.04
Tip of tongue	2	1.84
Posterior 1/3 rd of tongue	19	21

Table 4: Nodal status of carcinoma of tongue

Site of carcinoma	Nodal status	Percentage
Anterior 2/3 rd of tongue	N ₀	52%
	N ₁	48%
Posterior 1/3 rd of tongue	N ₀	2%
	N ₁	38%
	N ₂	60%

Table 5: Stage & type of carcinoma of tongue

Stage of carcinoma	Surgical procedure	No. of cases	Percentage (%)
Stage 1	Wedge resection	2	1.84
Stage 2	Hemi-glossectomy with supra-omohyoid dissection	28	25.76
Stage 3	Hemi-glossectomy with supra-omohyoid dissection with chemo-radiation	38	34.96
Stage 4	Radical excision with hemi-mandibulectomy with PMMC reconstruction	24	22.08
Type of carcinoma			
Squamous cell carcinoma	-	87	80.04
Verrucous carcinoma	-	2	1.84
Muco epidermoid carcinoma	-	2	1.84
Malignant fibrous histiocytoma	-	1	9.2

Discussion :

In malignancies affecting the oral cavity tongue is commonly involved. The incidence of carcinoma tongue increases with age. There is lower incidence in females compared to males in all age groups^[6]. A comparative study conducted by Vargas et al reported squamous cell carcinoma of anterior tongue is more aggressive in behavior in terms of recurrence rates in younger females than older patients^[7]. In study conducted by Lam & et al shows involvement of lateral border of tongue and tip in 25% of cases and base of tongue in 18% of cases^[8]. In our study left lateral border of tongue is more frequently involved with 34.04% followed by right lateral border in 31.28%. The incidence of nodal metastasis seen in T1 and T2 lesions in the study conducted by Huang et al is 5.2% and 14.6% respectively^[9]. In our study 48% of nodal involvement is seen in anterior 2/3rd of tongue.

The management of carcinoma of tongue requires multi disciplinary approach consisting of tumor resection and chemo-radiation. However, the choice of treatment is based on nature of carcinoma and patient general condition. In the study conducted by Hicks et al^[10]. Management of squamous cell carcinoma is achieved primarily by surgical treatment alone.

Conclusion:

Carcinoma tongue is the commonest type of carcinoma in the oral cavity. There is a male preponderance. Incidence increases with age, management includes multi modal treatment including surgery followed by chemo-radiation

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