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Prevalence of Potentially Malignant Disorders in Dental OPD at Tertiary Care Centre.

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Abstract

Aim & objective: The aim & objective of this study was to analyze the spectrum of potentially malignant lesions in dental opd at a tertiary care hospital.

Material & Methods: The study was carried out for a period of 3 months during which a total of 116 subjects were clinically diagnosed with oral premalignant disorders.. This study was observational and analytical in nature. The detail clinical evaluation was done and type of oral lesion were determined. Demographic data was noted.

Result : of all the 116participants, , the frequency of potentially malignant diseases showed following results. 31% of the subjects had Sqaumous Cell Carcinoma , 46% had OSMF , and 30.2% had Leukoplakia.

Conclusion: OSMF dominated the premalignant lesions in younger age group. : Leukoplakia and Sqamous Cell Carcinoma in middle and older age group. Predominantly the patient belonged to low socio-ecnomical group . Such rural patients have low education and high prevalence of adverse oral habits for a prolonged duration.

Keywords: Premalignant oral lesions, Leukoplakia, Oral submucous fibrosis, Rural, Adverse oral habits

Introduction

Oral cancer is the 6th most common cancer in the world which accounts for 3,50,000 new cases and 1,28,000 deaths annually. In India, oral cancer is one of the leading cancer today. Its incidence is 12.6 per 1,00,000 population [1]. oral cancer is the most common malignancy in Southeast Asia, accounting for about 30-40% of all malignancies in India[2].

Tobacco consumption is a major preventable risk factor for cancer] It is a major cause for morbidity and mortality in India [3]. Around 1 million people die every year in India due to tobacco consumption.[4] . Precancerous lesions and conditions are seen in healthy individual and hence can be identified by screening[5].

Material & Methods

This was observational, analytical type of study of six moths duration from October 2018 to march 2019. The patients visiting the dental OPD of Indira Gandhi Institute of Medical Sciences, . Ethical clearance was obtained from institutional ethics committee. Patna were examined and those patients in whom oral

premalignant disorders were present clinically were included in the study.. Detailed clinical history was taken and oral examination was done after taking informed consent . Personal habits of tobacco chewing, smoking,pan masala,bidi were recorded . Based on history given my patient and clinical findings, oral lesions were as 'Sqamous cell carcinoma, oral submucosal fibrosis (OSF)', leukoplakia.

Results

Out of 116 participants, 31% of the subjects had Sqaumous Cell Carcinoma (table 1a) , 46% had OSMF(table 1b) , and 30.2% had Leukoplakia(table 1c) .

Prevalence of lesion Table 1

1a: Squamous_Cell_Carcinoma

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	80	69.0	69.0	69.0
	Yes	36	31.0	31.0	100.0
	Total	116	100.0	100.0	

1 b: OSMF

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	62	53.4	53.4	53.4
	Yes	54	46.6	46.6	100.0
	Total	116	100.0	100.0	

1 c: LEUKOPLKIA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	81	69.8	69.8	69.8
	Yes	35	30.2	30.2	100.0
	Total	116	100.0	100.0	

Gender wise distribution of participants. Table 2

Out of 116 participants, the genderwise prevalence of potentially malignant diseases showed following results. Out of 31% of the subjects having Sqaumous Cell Carcinoma, 28.4% were male and 2.6% were female. (table 2a) , Out of 46% subjects having OSMF , 41.4% were male and 5.2% were female (table 2b) , and out of 30.2% having Leukoplakia 26.7% were male and 3.4% were female (table 2c) .

Table 2 a: Squamous_Cell_Carcinoma * Gender Crosstabulation

			Gender		Total
			Male	Female	
Squamous_Cell_Carcinoma	No	Count	72	8	80
		% of Total	62.1%	6.9%	69.0%
	Yes	Count	33	3	36
		% of Total	28.4%	2.6%	31.0%
Total		Count	105	11	116
		% of Total	90.5%	9.5%	100.0%

Table 2 b : OSMF * Gender Crosstabulation

			Gender		Total
			Male	Female	
OSMF	No	Count	57	5	62
		% of Total	49.1%	4.3%	53.4%
	Yes	Count	48	6	54
		% of Total	41.4%	5.2%	46.6%
Total		Count	105	11	116
		% of Total	90.5%	9.5%	100.0%

Table 2 c: Eukoplkia * Gender Crosstabulation

			Gender		Total
			Male	Female	
LEUKOPLKIA	No	Count	74	7	81
		% of Total	63.8%	6.0%	69.8%
	Yes	Count	31	4	35
		% of Total	26.7%	3.4%	30.2%
Total		Count	105	11	116
		% of Total	90.5%	9.5%	100.0%

Age wise distribution of participants. Table.3

Age wise distribution of all subjects were evaluated. All participants belonged to the age group between 20-70, which were further divided into groups.

Sqaumous cell carcinoma - Out of all the age groups, 4.3% belonged to age group of 20-29, 17.1% of age group between 30-39. Followed by 34.8% , 61.5% , 42.9% and 87.5% belonged to the age group of 40-49, 50-59, 60-69, and above 70 simultaneously. . (Table. no .3a)

OSMF: Out of all the age groups, 82.6% belonged to age group of 20-29, 71.4% of age group between 30-39. Followed by 39.1% , 7.7% , .0% and .0% belonged to the age group of 40-49, 50-59, 60-69, and above 70 simultaneously. . (Table. no .3b)

Leukoplakia: Out of all the age groups, 57.1% belonged to age group of 20-29, 25.7% of age group between 30-39. Followed by 30.4% , 38.5% , 21.7% , 12.5% belonged to the age group of 40-49, 50-59, 60-69, and above 70 simultaneously. . (Table. no .3c)

Table no. 3a SQUAMOUS_CELL_CARCINOMA * Age_Group Crosstabulation

			Age_Group						Total
			20-29	30-39	40-49	50-59	60-69	70=>	20-29
Squamous Cell Carcinoma	No	Count	22	29	15	5	8	1	80
		% within Age_Group	95.7%	82.9%	65.2%	38.5%	57.1%	12.5%	69.0%
	Yes	Count	1	6	8	8	6	7	36
		% within Age_Group	4.3%	17.1%	34.8%	61.5%	42.9%	87.5%	31.0%
Total		Count	23	35	23	13	14	8	116
		% within Age_Group	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 3b: OSMF * Age_Group Crosstabulation

			Age_Group						Total
			20-29	30-39	40-49	50-59	60-69	70=>	20-29
OSMF	No	Count	4	10	14	12	14	8	62
		% within Age_Group	17.4%	28.6%	60.9%	92.3%	100.0%	100.0%	53.4%
	Yes	Count	19	25	9	1	0	0	54
		% within Age_Group	82.6%	71.4%	39.1%	7.7%	.0%	.0%	46.6%
Total		Count	23	35	23	13	14	8	116
		% within Age_Group	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 3c: Leukoplkia * Age_Group Crosstabulation

			Age_Group						Total
			20-29	30-39	40-49	50-59	60-69	70=>	20-29
LEUKOPLKIA	No	Count	6	26	16	8	18	7	81
		% within Age_Group	42.9%	74.3%	69.6%	61.5%	78.3%	87.5%	69.8%
	Yes	Count	8	9	7	5	5	1	35
		% within Age_Group	57.1%	25.7%	30.4%	38.5%	21.7%	12.5%	30.2%
Total		Count	14	14	23	13	23	23	116
		% within Age_Group	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Discussion

In the present study, 116 subjects were included ,subjects were selected between the age group of 20-70, . Our study included the population with a mean age group which was 20 years and above age group which was similar to Pindborg .[6] . The most prevalent of potentially malignant lesions were OSMF , Leukoplakia , Sqaumous Cell Carcinoma. The analysis showed 31% of the subjects had Sqaumous Cell Carcinoma , 46% had OSMF , and 30.2% had Leukoplakia.

Our study included the population with a age group of 20 to 60 and above,which was concoherence to B. Hari Vinay et allin 2014 who conducted study belonging to age group between 20-70 years.[7] . However some researchers have included different age groups ranging from 35 years and above by Lim et al., in 2003[8] . In our study subject above the age group of 40-49 had squmous cell carcinoma. OSMF maximum were in the age group of 20-30 years of age (46.1%), which is similar to the findings of a study conducted in Bangalore India, where maximum number of the participants were in of age 21-30 years .[9] . Leukoplakia more predominantly found above the age of 40years.

In the present study males were 52.4% and females were 47.6%. Similar distribution of sex was seen in the study conducted by Shakini at at.2014 . Male predominance showed Sqaumous Cell Carcinoma, 28.4%, OSMF , 41.4%, Leukoplakia 26.7% .This study was coherence to[7, 10]

Conclusion- Most Potentially Malignant Diseases are asymptomatic. Oral health examination by screening should be the main aim for early detection and prevention of oral cancer. There are more requirement of awareness programs involving the dental and medical professionals. The common population should be made aware of the high risk of these lesions and transformation into oral malignancy .

No conflict of interest

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