



Oral squamous cell carcinoma in Iraq: clinical analysis

Dr. Abdul Baki Al-Kawaz ,BVM&S M.S.c General Pathology

Abstract

Squamous cell carcinoma is the most common malignant tumor of oral mucosa. Oral cancer is one of the prevalent cancers of the body and is the most common cause of the death, in Iraq little is written regarding the occurrence of oral cancer.

Clinical details of 129 (80 males and 49 females) patients with oral squamous cell carcinoma were collected from the Institute and Hospital of Radiotherapy And Nuclear Medicine Center in Baghdad during the period 2003-2006. The aim of the current study is to find out the prevalence of oral cancer in different governorates of Iraqi patients in relation to gender, age and site.

The highest prevalence was observed in tongue 72 (55.81%) while the lowest prevalence was found in the floor of the mouth 5 (3.87%).

The age groups 51–60 years were highly affected by squamous cell carcinoma 45(34.88%), while the lowest affected age groups were <10 years and 11-20 years 1 (0.77%).

Baghdad governorate had the highest prevalence of oral squamous cell carcinoma 53(41.08%) .

Key word: Squamous cell carcinoma, Oral cancer, Prevalence.

Introduction

Oral cancer is a major public health issue worldwide. It remains a highly lethal and disfiguring disease⁽¹⁾. Squamous cell carcinoma is the most common malignant tumor of oral mucosa⁽²⁾. More than 90% of tumors in the head and neck are squamous cell carcinoma⁽³⁾. In the UK and USA, oral cancer accounts for only about 2% of all malignant tumors, but in parts of India and Srilanka are however, exceptional and account 40% or more of all cancer⁽⁴⁾. Over 90% of oral cancer occurs in patients over 40 years and almost there is a linear increase in the incidence with age⁽⁵⁾.

Females have a lower incidence than males at all age levels⁽²⁾. It is considered that age and sex parameters have significant prognostic factors⁽⁶⁾.

Environmental carcinogens such as chemicals, radiation and viruses are important promoting factors in the development of oral cancer⁽⁵⁾.

In Iraq, oral cancer account for about 4.5% of all cancer cases according to Iraqi cancer registry and it represent about 91.5% of all oral cancer and 37% of the head and neck cancer⁽⁷⁾

Materials and Methods

Data collected in this study were obtained from the files of the patients registered in the Institute and Hospital of Radiotherapy And Nuclear Medicine Center in Baghdad during the period 2003-2006). The clinical features recorded included age, gender, site. The diagnosis of oral squamous cell carcinoma at that period was confirmed by histopathological examination. All specimens diagnosed were stained by Hematoxyline and Eosin stain.

Clinical details of 129 (80 males and 49 females) patients with oral squamous cell carcinoma were studied, the age ranges in this study were < 10 years to >90 years.

Statistical analysis of 129 cases of oral squamous cell carcinoma was done.

The present study was conducted to find out the prevalence of oral squamous cell carcinoma in different governorates of Iraqi patients in relation to gender, age and site.

Results

1. Site of lesion:-

Squamous cell carcinoma lesions were found in different areas of oral cavity and the highest prevalence was observed in tongue 72 (55.81%) in both sexes males and females 40 and 32 (31% and 24.80%) respectively, while the lowest prevalence was found in the floor of mouth 5 (3.87%) also in both males and females 3 and 2 (2.32% and 1.55%) respectively, as shown in table 1.

2. Ages of patients:-

Out of 129 patients suffering from oral squamous cell carcinoma, the age groups 51-60 years were highly affected by squamous cell carcinoma 45(34.88%), while the

lowest affected age groups were <10 years and 11-20 years 1 (0.77%) for each group (Table 2).

3. Distribution of tumor:-

Table 3 shows that the highest percentage was recorded in Baghdad governorate 53(41.08%), while the lowest one was found in the Karbala governorate 1(0.77%).

Discussion

Squamous cell carcinoma of the head and neck is one of the most common cancers world wide and an important cause of morbidity and mortality throughout the world and the incidence of the oral cancer varies enormously around the world⁽⁸⁾.

Incidence of oral cancer and mortality rates vary between different races, gender and age groups⁽⁹⁾.

Oral squamous cell carcinoma may occur in any part of the oral mucosa. It may occur at any area of oral mucosa, but the most common sites are lateral border of tongue and floor of mouth combine to form horseshoe shaped area of oral mucosa, which have the greatest risk for development of oral cancer⁽¹⁰⁾. Our results showed that the tongue was the main site of oral squamous cell carcinoma 72 (55.81%) followed by the gum and lips (table 1). This finding disagrees with Talabani⁽¹¹⁾ who showed that the lower lips were the most common affected sites followed by the tongue. Whereas our finding is comparable to that of Kashmoola⁽¹⁵⁾ who found 36% of cases of oral squamous cell carcinoma affected the tongue.

The incidence of oral cancer was varying considerably between age groups⁽¹²⁾. There was a sharp and linear increase in the incidence with age⁽⁵⁾; which agreed with our results, the age groups between 41-50, 51-60, and 61-70 years showed the highest percentage of lesion. Also, about 95%

of oral squamous cell carcinoma patients were above the age of 40 years and the most commonly affected age group was 61- 70 years; similar findings were recorded by Talabani⁽¹¹⁾ who found that 85% of patients were above the age of 40 years and patients at their 6th decade of life were the most commonly affected. In the western countries 90% of oral cancer patients were over 40 years⁽¹²⁻¹³⁾ which agrees our findings. These results may be due to environmental carcinogens such as chemicals, radiation and viruses which are important promoting factors in the development of oral cancer^(5, 14). Accumulative effects of these carcinogens through out prolonged exposure of the life in elderly patients may explain the increased incidence with aging⁽¹⁵⁾.

Oral squamous cell carcinoma is more common in male than female,⁽⁹⁾ which agrees with our results (table 1), whereas there was no gender predilection with equal distribution between male and female have been found by Abd Rahim *et. al.*⁽¹⁶⁾. This may be related to that female have been not equally exposing to known oral carcinogens such as tobacco and alcohol⁽¹⁷⁻¹⁸⁾. Also, intrinsic factors include systemic or generalized states, such as general malnutrition or iron deficiency anemia⁽¹⁹⁻²⁰⁾, that may reflect the highest rates in the males than females. Also poor oral hygiene is regarded as having a comparable modifying effect⁽²¹⁻²³⁾.

The data were obtained (collected) from the Institute and Hospital of Radiotherapy And Nuclear Medicine Center in Baghdad represents the cases referred from different governorates in Iraq, which may not reflect the real number of each governorate.

The prevalent study reveal that high percent (41.08%) was recorded in Baghdad, which may be due to the high population of Baghdad and

because the location of the institute and Hospital of Radiotherapy And Nuclear Medicine Center as well in Baghdad which made the referral cases reach the institute easier .

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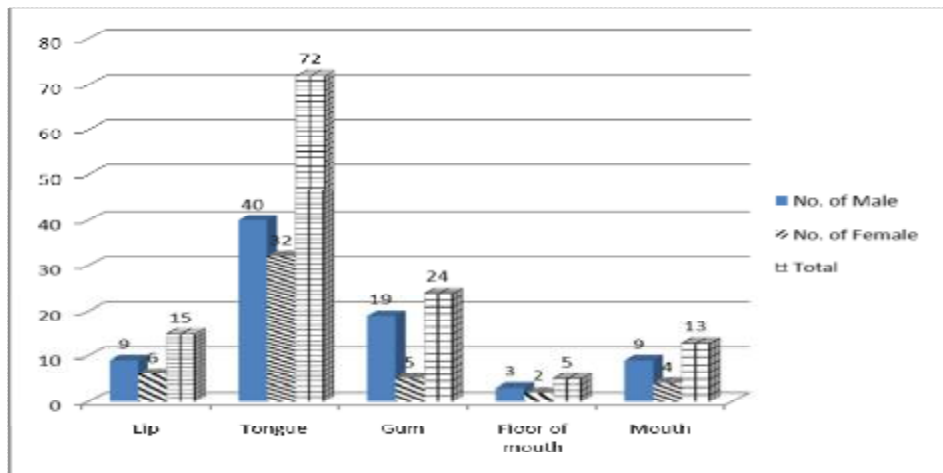
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Tab-1:-Distribution of oral squamous cell carcinoma, according to site and gender.

Sites of tumor	Male		Female		Total	
	No.	%	No.	%	No.	%.
Lip	9	(6.976 %)	6	(6.651%)	15	(11.627%)
Tongue	40	(31.00 %)	32	(24.806%)	72	(55.813%)
Gum	19	(14.728 %)	5	(3.875%)	24	(18.604%)
Floor of mouth	3	(2.325 %)	2	(1.550%)	5	(3.875%)
Mouth (NOS)*	9	(6.976 %)	4	(3.100 %)	13	(10.077%)
Total	80	(62.015 %)	49	(37.947 %)	129	

Chart 1 : Distribution of oral squamous cell carcinoma, according to site and gender

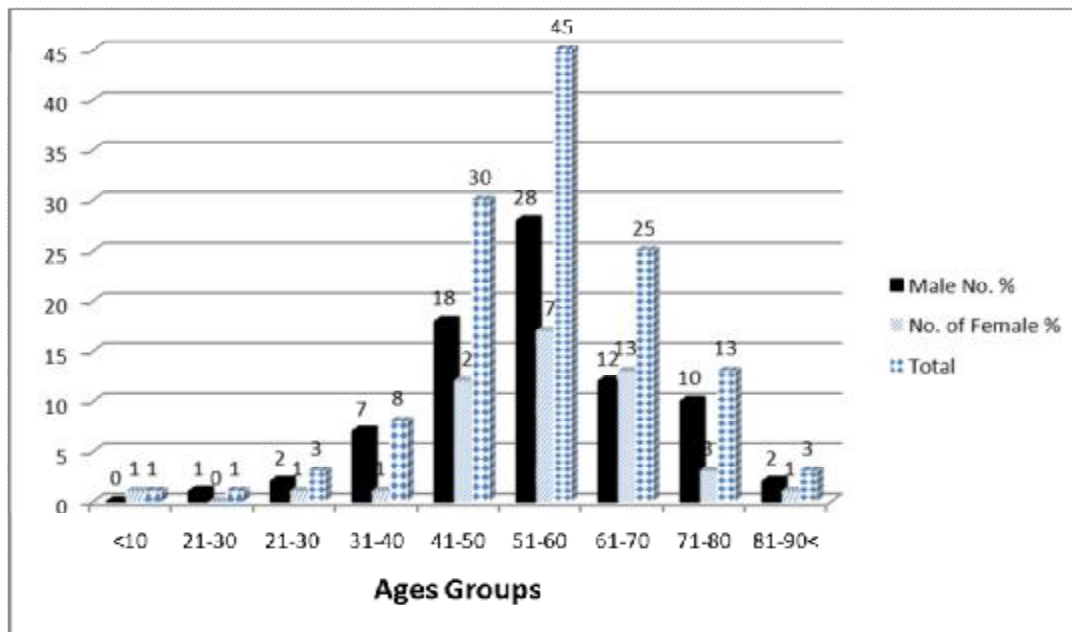


* NOS : not otherwise specified (ICD-O)

Tab-2:-Distribution of oral squamous cell carcinoma, according to age and gender.

Age group(yrs.)	Male		Female		Total	
	No.	%	No.	%	No.	%
<10	0		1	(0.775%)	1	(0.775%)
11-20	1	(0.775 %)	0		1	(0.775%)
21-30	2	(1.550 %)	1	(0.775%)	3	(2.325%)
31-40	7	(5.426 %)	1	(0.775%)	8	(6.201%)
41-50	18	(13.953%)	12	(9.301%)	30	(23.255%)
51-60	28	(21.705%)	17	(13.178%)	45	(34.883%)
61-70	12	(9.301 %)	13	(10.077%)	25	(19.379%)
71-80	10	(7.751 %)	3	(2.325%)	13	(10.077%)
81-90<	2	(1.550 %)	1	(0.775%)	3	(2.325%)
Total	80	(62.015%)	49	(37.984%)	129	

Chart 2 Distribution of oral squamous cell carcinoma, according to age and gender.



Tab.3:- Distribution of oral squamous cell carcinoma .

<i>Governorates</i>	<i>No. of cases</i>	<i>%</i>
<i>Baghdad</i>	53	(41.08 %)
<i>Salah addein</i>	8	(6.20 %)
<i>Basrah</i>	8	(6.20 %)
<i>Wasit</i>	8	(6.20 %)
<i>Najaf</i>	7	(5.42 %)
<i>Sulaimaniya</i>	7	(5.42 %)
<i>Babil</i>	7	(5.42 %)
<i>Thiqar</i>	6	(4.65 %)
<i>Maysan</i>	6	(4.65 %)
<i>Qadisiya</i>	5	(3.87 %)
<i>Diyala</i>	4	(3.10 %)
<i>Anbar</i>	4	(3.10 %)
<i>Kirkuk</i>	3	(2.35 %)
<i>Muthanna</i>	2	(1.55 %)
<i>Karbala</i>	1	(0.77 %)
Total	129	

Chart 3 Distribution of oral squamous cell carcinoma.

