

Original Article

Oro-facial carcinoma in kaduna

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Abstract

Background To review the epidemiology and morbidity Oro-Facial cancers seen and managed at Ahmadu Bello University Teaching Hospital (ABUTH). To estimate the incidence and prevalence of Oro-facial Cancer presenting at the clinic. To highlight the poor prognosis inspite of better facilities for management. To evaluate the various factors affecting the poor prognosis.

Patient and Method A 5-years retrospective study of 211 patients with Oro-facial cancers in the maxillo-facial unit of Ahmadu Bello University Kaduna, was carried out. The demographic pattern, clinical features, Histopathological findings and treatments modalities as obtained from the patients' folder were studied.

Result From the 211 Oro-facial cancers studied, Squamous cell carcinoma accounted for 136 (64%), Adenocystic carcinoma 30 (14%), Adeno carcinoma 11 (5%), metastatic carcinoma 8 (4%), other 26 (13%). House wives, farmers and trader accounted for 152 (71%) of all the patients. 92% (192 patients) presented at very advanced stage of the disease when little or no help can be rendered. The age of presentation ranged between 15 to 84 years with median age at 44.5. There were 135 (64%) males affected and 76 (36%) females with a male to female ratio of 1.8:1.

Conclusion: Public enlightenment is necessary to encourage early presentation, since majority of people in this environment has access to radio media.

Key Words: Oro-facial Cancers, Late presentation, Prognosis.

Introduction

Recent advances in the management of cancers generally not withstanding, Oro-facial carcinoma has assumed a major health concern all over the world especially in our environment.¹ The major factors responsible for the poor prognosis in Kaduna and environs is that of late presentation.² The maxillo facial unit of the Ahmadu Bello University Teaching Hospital has for the past four decades been the major surgical centre in Northern Nigeria for the management of Oro-facial cancers covering an estimated population of 60 million people. (Census 2006)

Material and Method

In the period January 2000 – December 2004, 400 patients were managed at maxillo facial unit of Ahmadu Bello University Teaching Hospital Kaduna, for Oro-facial malignancies. Records of 211 of them were traced and have been retrospectively reviewed for Oro-facial cancers. Data collected and analyzed

included age, sex, geographical spread, occupation, site of tumor, duration of tumor, histologic type, aetiologic factors, treatment modality, prognosis and follow up.

Result

The ages of the patients ranged between 15 and 84 years. The mean age is 44.5 while the standard deviation of the sample is 41.72. The age range was 20 and 79 years. Sixty 135(64%) of the patients were within interval group 40 – 49. 76 (36%) were females and a male to female ratio of 1.8:1. Though our centre is located in the North central zone (Middle belt) of Nigeria, we note that our patients come from all over the country but a significant majority 144 (68.25%) patients group are native to the Northern part of the country. By ethnic consideration the majority 136 (64.45%) were Hausas a dominant tribal group in the Northern Nigeria. House wives and farmers were also significantly affected. When tumour histology was

No	Tumour	Location													
		Palate	Tongue	Maxilla	Maxillaryantrum	Mandible	Nasopharynx	Check	Eye Lid	Submandibular	Floor of Mouth	Parotid	Lip	Alveolus	Orbit
30	Adenocystic	12	0	3	5	3	0	3	0	3	0	0	0	0	1
7	Mucoepidermoid	1	0	2	1	0	0	1	0	1	0	2	0	0	0
7	Nasopharyngeal	0	0	1	1	0	5	0	0	0	0	0	0	0	0
11	Adenocarcinoma	3	0	1	1	2	0	0	0	0	1	3	0	0	0
7	Basal Cell Ca	0	0	5	0	0	0	1	0	0	1	0	0	0	0
8	Metastatic ca	0	0	1	1	3	0	0	1	1	0	2	0	0	0
2	Nasoaptral ca	0	0	0	1	0	1	0	0	0	0	0	0	0	0
3	Verucous ca	0	0	1	0	1	0	0	0	0	0	1	0	0	0
136	Squamous cell ca	19	1	1	28	27	3	4	0	1	5	1	15	6	0
211	Total	35	1	3	37	36	9	8	1	6	7	9	15	6	1

Fig 2 Histology and tumour location.

studied, squamous cell carcinoma was the commonest histiotype accounting for about 63.51% and was commonly sited in the palate. Squamous cell tumour however has the ability to affect all parts of the maxillofacial anatomic domain and in this study was seen affecting in an uneven spread the tongue, lip, alveolus exclusively. Adenocystic carcinoma which appears to have some predilection for palate like squamous cell carcinoma is next to in frequency. The mandible, palate, maxillary antrum and maxilla, in that order are the sites most frequently affected. 90% patients presented with advanced tumours with no differential for sex. Most patients studied had seen a traditional practitioner and were not previously aware of the availability of orthodox treatment. A few others had financial limitations. Some patients were returning after previously defaulting from our care. The commonest feature on presentation by these patients was a swelling in 60%. Mobility of teeth, abscess formation and plus discharge were rarely seen. Squamous cell carcinoma presents in different ways depending on the histologic type. The verucous carcinoma and mucoepidermoid carcinoma which are squamous variants presented as tissue swelling only. It is also interesting to note that pain was not a common feature in the presentation of our patients even if they look grotesque.

Discussion

Facial cancer is a serious malignant disease, which is fatal if not treated. It can affect any tissue of oro-facial region. In the oral cavity, it usually begins as a rough patch, ulcer or lump affecting the lip, tongue, floor of the mouth with a significant tendency to metastasize to the cervical lymph nodes. It is a disease with poor prognosis. In many countries of the world, there has been an alarming rise in the incidence figure

for oral cancer, especially among young males in the past two decades.^{17, 18, 19, 20.} This trend seems to be continuing. According to the Federation of Dental Institute commission on oral Health Research and Epidemiology held during the World Dental Congress in Singapore September, 1990. The mortality of oro-facial cancer was said to remain unacceptably high all over the world.²³ In the United Kingdom over 2,000 new cases are said to be registered per year (many believed this is under reported)^{18,19,} it ranks in United Kingdom and America as the 6th most common cancer almost comparing to lungs cancer^{21,22.} In Canada it ranks 9th among the male and 16th in women. Oro-facial cancer²⁰ in India is about 40% of all malignancies^{2,10} High rates are also reported in Hong Kong, France, South America, South East Asia, western pacific and new found land. Oro-facial cancer therefore is rapidly becoming a major public Health problem^{17 18 19.} Squamous cell carcinoma accounts for 80% of all oro-facial cancer in Europe and America, 82% in Canada and in Africa with a range of 70 – 80%.^{1,2, 5 .6, 7} The five year survival rates all over the world is about 55% despite improvement in management strategies. Factors affecting the poor prognosis all over the world include late presentation to hospitals. It is said that over 50% of oro-facial cancers presents as advanced stage disease^{23 2,16,17,21.} This makes it very difficult to achieve good prognosis. Other factors include lack of awareness. In the United Kingdom eight out of ten patients don't realize that cancer can occur in the mouth so they ignore the signs^{18,19,21}

Factors responsible for poor prognosis in addition to the above include poverty,^{15,12,113} local beliefs, for example it is a common saying among the Hausas that "cancer does not like injections." Indicating that

cancer does not respond to medical treatment. This made many cancer patients to sit at home seeking only local means of curing the disease and only come to the hospital as a last resort when the cancer has reached the advanced stage. These and other factors such as long distance from the centre of management, high cost of management, paucity of personnel to effectively managed the cases are major causes of poor prognosis in Africa.³ The aetiological factors of oral cancer worldwide remain majorly abuse of tobacco and alcohol.⁴ Tobacco is abused world wide in different forms as chewing smoking, and snuffing^{23, 28}. This when combined with alcohol is said to have a synergic effect and is probably responsible for the increase in the number of new cases seen world wide yearly to about half a million especially among young adults.^{21, 23, 28} In this series two hundred and eleven cases of Oro-facial carcinoma seen over a period of five years were analyzed. The yearly occurrence of the disease is about 30 cases. This showed a slight increase over the yearly occurrence of the 25 reported by Adekeye in the centre in 1985.^{12, 25} and a very high difference from cases reported at Ibadan 12, Lagos 15, Ilorin 18,^{15, 9, 11, 13} More males 135 (63%) were affected than females (76 (36.1%) approximately ratio 1.8:1. this showed a slight decrease in male to female ratio of 2:1 pervious study in the department but a higher male to female ratio of 1.5:1 from Ibadan and Lagos 1.7:1,^{14, 15}. The factors that accounts for higher male ratio can be linked to the abuse of tobacco and alcohol. Over 80% of all males in this study use alcohol and tobacco. There is a wide age distribution ranging from 15 to 84, the youngest was 15 years and the oldest in the series was 84 years with a mean age of 50 years. Age of occurrence showed some interesting pattern. There is a steady increase in the age of occurrence from 15 to 49 and a steady decrease from 50 to 85. The highest age occurrence was seen between 40 – 49 and 50 – 59 i.e. 5th and 6th decades of life for both male and female. There seemed to be an improvement when compared to previous study where the peak age of occurrence was seen at 4th and 5th decades. The mean age in this study is lowered compared to that reported in America,^{2, 4, 16, 17} Canada, western Europe and Asia. For example the mean age was 62 years in America, Canada 60 years, India 57 years, Britain 63 years and Australia 60 years but higher than cases reported from Lagos 49 years, Ibadan 48 years and previously reported cases from the department 45 years^{11, 13, 24} Site of distribution showed a different pattern from previous studies from the institution^{25, 26} and the other region of the country with the maxillary antrum having the highest 37, closely followed by the mandible 36, the palate 35, the maxilla 30, the lips^{15, 4, 7, 8, 27} the tongue 11, this simply means over 60% of all the carcinoma are located within the middle third of the face especially the maxillary antrum and its related surfaces. Previous study in the unit though mainly on intra-oral and not oro-facial carcinoma indicated oral mucous membrane as the main site occurrence with 63% of all the carcinoma.^{12, 25, 26} It is to be noted at this point that due to late presentation

there is absolute difficulty in recognizing the site of occurrence. For instance many of the carcinoma involving the palate and maxilla could as well be an advanced stage carcinoma of the maxillary antrum and vice versa, like wise some of the carcinoma involving the mandible may be an advanced stage of carcinoma of the floor of the mouth or alveolus. A significant difference was noticed on the sites of location of this tumour which could not be accounted for now as they seemed to favour the left side of the face. From the 30 cases of the carcinoma seen in the maxilla 20 were on the left while 10 on the right, for carcinoma involving the maxillary antrum 26 involved the left while 12 involved the right side. Similar differences were noticed in the other side such as mandible, the parotid and the submandibular glands where the tumours occurred more on the left side. Study from Ilorin another middle belt region of Nigeria country indicated the nose and the paranasal sinuses are the most common site of primary lesion and peak incidence in the 5th decades of life.²⁷ Squamous cell carcinoma accounted for 63.5% of all carcinoma in this study followed by Adenocystic carcinoma 14.2%, Adenocarcinoma 5.2%, metastatic carcinoma 3.7%. Generally speaking squamous cell carcinoma account for the largest carcinoma almost all over the world as mentioned earlier. However the percentage of squamous cell carcinoma seen in this report is so low compared to previous studies in this centre and other centers in the country such as Ibadan, Ilorin, Lagos,^{3, 5, 6, 7, 8, 14} The proportion of carcinoma involving the salivary glands in this centre seemed to be higher than those reported from other centers within the country.^{9, 11, 15, 24} Metastatic carcinoma with unknown primary site was encountered in 3.7% of all the carcinomas. The commonest feature on presentation is a swelling 60% followed by ulceration, teeth mobility, abscess formation, pain and bleeding. One of the major causes of poor prognosis in this study is late presentation, with over 92.4% of the patients, presenting with late disease and 7.6% patients came early. The 5 year survival was less than 30%. In this study, 32% of our patients were housewives and 30%, were farmers. 7%, were traders and 5% were cattle-rears. We studied the incidence in among the tribes to see if there was any trend. The Hausa Fulani's accounted for 66%, Yorubas and

Ibos 13%, other tribe 20%. Although the environment is predominantly Hausa dominated, carcinomas seemed to occur more among the Hausa Fulani when compared with previous studies^{12, 25, 26}

Conclusion, Oro-facial carcinoma is increasingly becoming a health concern in Northern Nigeria and factors contributing to the poor prognosis persist despite a seeming increase in the number of hospitals and improved medical services. There is still overwhelming poverty, lack of awareness, cultural practices and the large proportion of the populace dwelling in rural areas where medical facilities are non-existing or inadequate. We advocate the massive education to the rural population and to make health care assessable and affordable.

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