

Short Communication

Histopathologic patterns of malignant tumours of the oropharynx of the Jos University Teaching Hospital

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Malignant tumours of the oropharynx are usually insidious and potentially life threatening. With increased association with risk factors in our environment, its incidence is gradually increasing. This study aim to describe the histopathologic patterns of malignant Oropharyngeal tumours as seen in our institution. This is a descriptive retrospective study of all histologically diagnosed malignant oropharyngeal tumours gotten from the Histopathology Department of the Jos University Teaching Hospital (J.U.T.H.), Jos within the period of study (January 2000 to December 2010). 62 oropharyngeal surgical biopsies were analysed out of which 22 were malignant lesions. Out of the 62 oropharyngeal surgical biopsies, 22 (35.5%) were malignant; Males were commonest with 72.7% and females 27.3%. Age range was between 30 to 49 years and highest frequency in age range 50 to 59 years. Squamous cell carcinoma accounted for the highest histologic type (63.6%). Followed by non Hodgkins lymphomas (22.7%) and adenoid cystic carcinoma (1.6%), respectively. Commonest histologic pattern is the squamous cell carcinoma (well differentiated). It is said to have a good prognosis thus early detection should be encouraged to reduce morbidity and mortality. Avoidance of risk factors should also be emphasized.

Key words: Oropharynx, malignant tumours, histologic, Nigeria.

INTRODUCTION

The oropharynx is the middle part of the throat which includes the base of the tongue, the tonsils, the soft palate and the walls of the pharynx (Rosa, 1996). Risk factors to oropharyngeal malignancies include smoking and chewing of tobacco, heavy alcohol consumption, diets low in fruits and vegetables, human Papilloma virus infection (Rosa, 1996). These malignant tumors though insidious in growth are usually associated with high morbidity and mortality (Jovanovic et al., 1993; Krutehoff et al., 1990). This is buttressed by the fact that late presentation is the case in our environment (Otoh et al., 2006; Adoga et al., 2011).

Most literatures report squamous cell carcinoma to be the commonest malignant lesion in the oropharynx followed by non Hodgkin's lymphomas then minor salivary gland tumours (Adisa et al., 2001; Gervaso et al.,

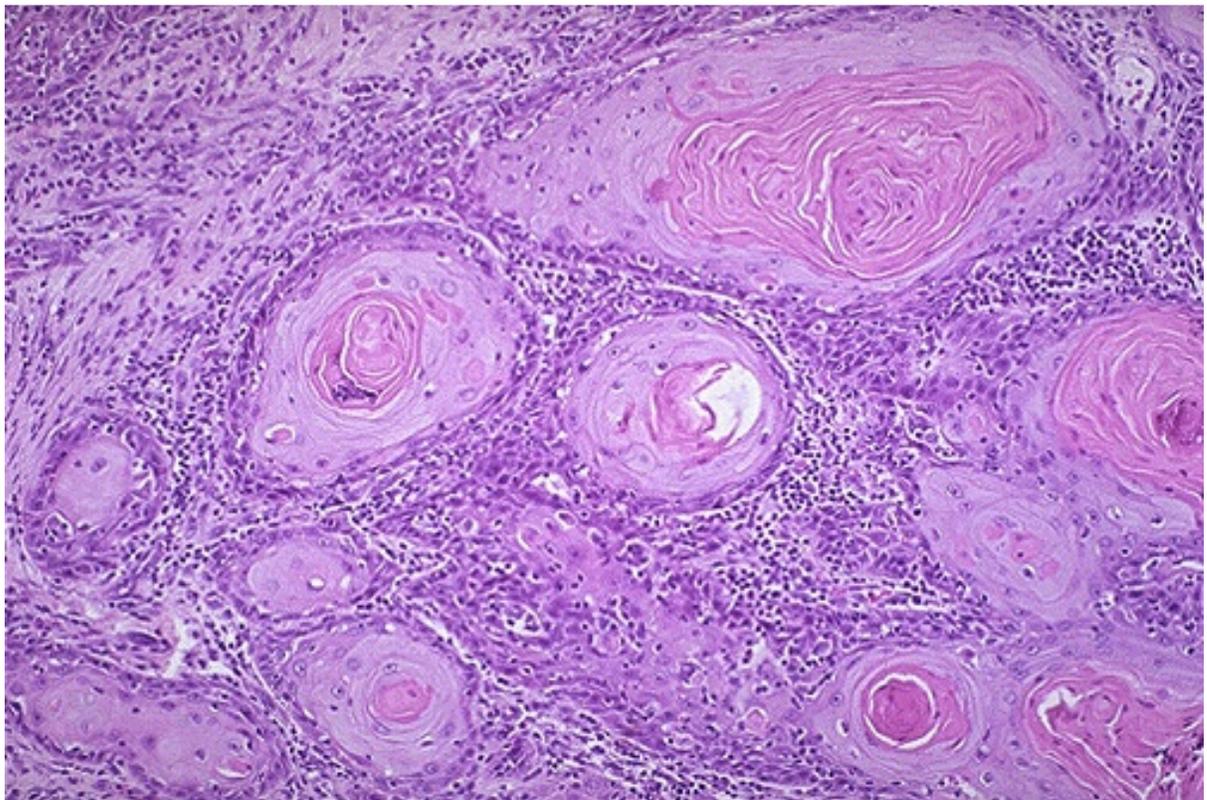
2001); Studies show incidence of these tumours varies significantly among continents and within industrialized and developing countries (Adisa et al., 2001; Gervaso et al., 2001; Oji, 1995). In Brazil and other developing countries, oropharyngeal carcinoma account for 35% of all malignancies and in the United States of American it's about 4% of all malignancies (Gervaso et al., 2001; Oji, 1995). Men are affected twice as often as women and in most instances affected individuals are older than 45 years of age (Shack, 1986). Worldwide statistics show that squamous cell carcinoma of the oral and oropharyngeal mucosa represents the 6th most common site of cancer amongst males and females (Shack, 1986). Previous studies in Nigeria reports figures ranging from 40 to 84% (Abiose et al., 1991).

An earlier report in Jos on clinicopathological profile shows non Hodgkin's lymphoma as the commonest (50%), closely followed by squamous cell carcinoma (33.3%) and 16.7% lymphoepithelioma (Adeyi et al., 2011). That same report shows late presentation of

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Table 1. Age and sex distribution of malignant oropharyngeal tumours.

Age	Sex	
	Male	Female
30 - 39	-	1
40 - 49	3	1
50 - 59	6	2
60 - 69	4	2
70 - 79	3	-
Total	16 (72.7%)	6 (27.3%)

**Figure 1.** Well differentiated Squamous cell carcinoma with numerous keratin pearls on a background of chronic inflammation. Stain H&E, Magnification x40.

patient and generally poor prognosis (Adoga et al., 2011).

METHODOLOGY

This is a ten years descriptive study of all histologically diagnosed malignant tumours of the oropharynx from January 2000 to December 2010. The records were gotten from the histopathology department of the Jos University Teaching Hospital Jos, Plateau State Nigeria. The department receives samples from Jos and neighbouring Bauchi, Benue, Nassarawa and Taraba States. The age, sex and histologic diagnosis were gotten from the record. Simple statistical method was used to analyse the data.

RESULTS

Of the 62 oropharyngeal biopsies seen over the period of study, 22(35.5%) were malignant. Males were commonest with 72.7% and females 27.3% (Table 1). Age range was between 30 to 79 years and highest frequency in age range 50 to 59 years (Table 1). Squamous cell carcinoma accounted for the highest histologic type (63.6%) and they were mainly well differentiated (Figure 1). This is followed by non-hodgkins lymphoma (22.7%) and adenoidcystic carcinoma (13.6%), respectively (Table 2).

Table 2. Frequency of histologic types of oropharyngeal tumors.

Histologic types	Frequency (%)
Squamous cell carcinoma	14 (63.6)
Non hodgkins lymphoma	5 (22.7)
Adenoid cystic carcinoma	3 (13.6)

DISCUSSION

The findings show the age range between 30 to 79 years; this is consistent with some other studies in the western world and Africa (Abiose et al., 1991). Also, males are commoner than females and also consistent with other report (Vlajinac et al., 2006; Alabi et al., 2010; Conway et al., 2007). Table 2 shows squamous cell carcinoma, which is the commonest histologic type; this is consistent with other studies in the industrialized world but varies with a previous study in Jos, Nigeria (same centre as this report) which reported non Hodgkins lymphoma as the commonest histologic type. In this study, adenoid cystic carcinoma is the commonest minor salivary gland malignancy of the oropharynx unlike in a previous study in same centre that reported lymphoepithelioma with malignant component as commonest salivary gland subtype (Adeyi et al., 2011). This disparity could be due to difference in sample size as the earlier findings by Adoga et al. (2011) considered only patients presenting to ENT clinic of the surgery department at JUTH, Jos whereas this study used samples gotten from the pathology laboratory of JUTH which receives samples from patients seen at JUTH, other governmental, private and mission hospitals/clinics in the state and in neighbouring states e.g. Nassarawa, Bauchi, Benue and Taraba states. Thus this study covers wider spectrum of patients.

The squamous cell carcinoma in this study is mainly well differentiated keratinizing type (Figure 1). This pattern is said to have a better prognosis than the poorly differentiated type. Thus early detection and management could reduce mortality and morbidity.

Life style changes in our environment like smoking, alcohol consumption has greatly increased thus constituting a risk to development of this cancer. Health education on these risk factors will go a long way in reducing the incidence. The populace should also be advised to present early so as to reduce morbidity and mortality. Hospitals should be equipped with sophisticated histopathologic diagnostic gadgets and other equipments to assist the otolaryngologists and clinical oncologists so that the burden of this disease could be reduced.

Conclusion

Malignant oropharyngeal tumours remain a problem in our

environment with prevalence of risk factors. Health education augmented with adequate cheap screening programmes instituted, could go a long way in reducing the burden of this disease. Since the predominant pattern is well differentiated squamous cell carcinoma and has good prognosis when treated early, early presentation to hospital should be emphasized.

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