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CLINICO-HISTOPATHOLOGIC TYPES OF MAXILLOFACIAL MALIGNANCIES WITH EMPHASIS ON SARCOMAS: A 10-YEAR REVIEW

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ABSTRACT

Background: Sarcomas are malignant neoplasms that occur anywhere in the human body. Though their occurrence in the head and neck region is rare vis-a-vis other malignancies, their presence is of tremendous concern due to their often grave prognosis.

Objective: To determine the pattern of occurrence, histopathologic types of maxillofacial sarcomas and their proportion to other malignant neoplasms of this region based on archival material accumulated over 10 years (2000-2009).

Design: A combined retrospective and prospective cross-sectional study.

Setting: The University of Nairobi Dental Hospital (UNDH).

Subjects: All cases with a diagnosis of sarcoma registered between 2000-2009 were evaluated.

Results: Of the 528 malignancies recorded over the ten-year period, 427 (80.9%) were of epithelial origin while 101 (19.1%) were sarcomas. Patients with epithelial malignancies were older (54.16 ± 15.94 years) than patients with sarcomas (31.73 ± 16.78) with the differences having been statistically significant. Osteosarcoma was the most commonly occurring sarcoma (29.7%), followed by Kaposi's sarcoma (KS) (28.7%), fibrosarcoma (FBS) (18.8%), and rhabdomyosarcoma (RMS) (9.9%). Sarcomas peaked in the third decade with 70% occurring below the age of 40 years. The maxilla and the mandible were the most afflicted sites in the maxillofacial region accounting for 52%. The patients on average presented to medical personnel about nine months after noticing the lesion with the most frequent complaint having been swelling.

Conclusion: The present study confirms the relative rarity of maxillofacial sarcomas. It also provides data on the histopathologic types and demographic characteristics of maxillofacial sarcomas in a select Kenyan population. This information is a contribution to the comprehensive documentation of sarcomas that occur globally and is useful in the provision of baseline data upon which future prospective analytical protocols may arise.

INTRODUCTION

Whole body sarcomas are relatively rare. In the United States, sarcomas account for approximately 1% of all malignancies with 5 to 15% of these lesions occurring in the head and neck region (1). In Nigeria, a retrospective study by Arotiba *et al.* reported 58 sarcomas (12.37%) out of 469 orofacial malignancies (2). Although head and neck sarcomas occur infrequently in adults, in the paediatric population one in three sarcomas will occur in the head and neck region. Most head and neck sarcomas are of the soft-tissue type with only 20% being of bony or cartilaginous origin (3).

There exist a limited number of reports on individual sarcomas occurring in the maxillofacial region. Most reports are centred on the head and

neck region rather than the more limited maxillofacial area. In general, studies on head and neck sarcomas are rare in the English literature. Further, the small number of patients with head and neck sarcomas makes it difficult for prospective studies to be undertaken. Chindia *et al.* revealed that, of the 10,897 whole body neoplasms reported between 1982-1991 at the Kenyatta National Hospital in Kenya, 985 were sarcomas among which 16% were found in the head and neck region (4). A clinico-pathologic study by Adebayo *et al.* in Nigeria reported that 20% of maxillofacial malignancies were sarcomas with a slight female to male predilection of 1.3:1 (5,6).

Bone sarcomas: Osteosarcoma is the most common primary malignancy of bone, with a reported

