

Relative Frequency of Odontogenic Tumours in Sri Lanka: An Analysis of 1674 Cases

B.S.M.S. Siriwardena, T.M.P.B. Tennakoon, and W.M. Tilakaratne

Department of Oral Pathology, Faculty of Dental Sciences, University of Peradeniya

Odontogenic tumours (OT) are lesions derived from epithelial, ectomesenchymal and or mesenchymal elements of the tooth forming apparatus. It constitutes a heterogeneous group of lesions with diverse histopathologic features and clinical manifestations. The spectrum of biologic behaviour of these lesions ranges from hamartomatous or non neoplastic tissue proliferations to malignant neoplasms.

The objective of this study was to determine the frequency of odontogenic tumours (OTs) in Sri Lankan population. A total of 1674 cases of OTs retrieved from the archives of the Department of Oral Pathology, Faculty of Dental Sciences, University of Peradeniya, Sri Lanka were analysed for age, gender and primary site of the tumours. Cases were re-classified according to the new W.H.O. OT classification (2005). Relative frequency of different types were also analysed and compared with the literature.

Odontogenic tumours represented 3.75% of all cases received during the period of 30 years (1980 - 2010). Ninety eight percent of these tumours were benign and the rest was malignant. Mandible (73.9%) to maxilla (26.1%) ratio was 2.8:1. Posterior part, the molar region was the most frequently affected site for the mandible whilst it was the anterior region for the maxilla. The age ranged from 1-80 years with a mean age of 30.6 years. Ameloblastoma of solid/multicystic (S/MA) and unicystic (UA) types showed high preponderance for the mandible (>90%) with a ratio of 12.9:1 and 10.8:1, respectively. In accordance with the literature, adenomatoid odontogenic tumours (AOT) and odontomas showed higher maxillary predilection with the ratio of 2.3:1 and 6.6:1, respectively. Desmoplastic ameloblastomas tend to occur commonly in anterior maxilla. Tumours that involved more than two areas such as premolar-molar area or incisor-premolar area or half of the mandible were mainly ameloblastomas (S/MA & UA) and keratocystic odontogenic tumours (KCOT). Out of 1674 cases, 48.7% were ameloblastomas, and other tumours such as KCOT, odontomas, AOT were 25.7%, 10.1% and 4.6%, respectively. The cases that involved more than one zone in mandible were 478 (45.5%) and 118 (31.2%) in maxilla. In conclusion, although odontomas are said to be the commonest in western countries, our results showed ameloblastoma as the commonest, followed by KCOT.