Orodental Biopsies in Females: A 23 Year Study

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INTRODUCTION

Biopsy procedure is an important tool to confirm diagnosis in most of the surgical procedures where clinical examination alone can often be difficult and inaccurate. The aim of this study was to assess the use of histopathological services by the dental department and to correlate the clinicopathological diagnosis in females who visited Patan Hospital.

METHODS

A limited database was reviewed and analyzed for the 396 dental biopsies taken in 23-year period from 1989 to 2012 at Department of Dentistry of Patan Hospital. The variables entered in the database were date, age, sex, treating dentist, clinical diagnosis and histopathological diagnosis. SPSS version 16 was used as an analytical tool.

RESULTS

Out of 396 dental biopsies 203 (51.3%) were females and 193 (48.7%) were males with mean age 34.34 years and standard deviation of 17.9 years. Malignant tumor was seen in six female cases, all of which was squamous cell carcinoma. The total number of neoplastic and non-neoplastic conditions was 44% and 56% respectively in both the sexes.

CONCLUSIONS: Most diagnoses were benign in nature and had an inflammatory etiology.

Keywords: Fibroma, Lichen planus, Radicular Cyst
DISCUSSION
The present study demonstrated that the overall distribution of the lesions analyzed was similar to the studies done in the United Kingdom,1 the United States of America,2,3 and Brazil.4 Most of the specimens from the female patients analyzed over the period of 23 years in this hospital were inflammatory lesions or benign cystic lesions.

Majority of the specimen analyzed fell into inflammatory lesions, corroborating data from various studies.2,3 The frequency of periampullary inflammatory lesions was similar to that reported by Jones and Franklin.1 This maybe because the patients visited the dental department only to treat the decayed teeth which is usually associated with periapical inflammation. Inflammatory hyperplasia was the major entity seen amongst the inflammatory group with a total of 35 cases, which is consistent with the data of other studies.1,3

Lichen planus was seen in seven percent of the total cases and 4.2% of females which is much higher than those seen in other countries like Japan with only 0.7% and Sweden 1.9%.5

Fibroma was the most frequent diagnosis in the benign tumor group, supporting previous findings reported in many literatures.2 Squamous papilloma was seen in six cases (a total of 25 cases in both sexes) similar to studies done by Jones and Franklin.1 However, in their studies they had found higher occurrence of squamous papilloma and lower proportion of fibroma.

Malignant tumors accounted for 6% of all specimens, which is in accordance with the reports of other studies.2,3 No case of Leukoplakia was diagnosed in females.

In the current study a total of 62 cases (16%) were cystic lesions, a total of 28 cases were seen in females. Out of these cysts, 11 cases (39.2%) were radicular cyst, 14 cases (50%) were dentigerous cyst and rest of the cases were epidermal cysts. In a study done by Manor et al., radicular cysts were seen in 48% cases.6 Most of the odontogenic cysts are benign in nature but some of it may exhibit aggressive and destructive behavior locally.7 Odontogenic cysts and tumors develop during or after the formation of teeth.8

Fibrous hyperplasia (in the form of fibroepithelial polyp) was seen in almost 25 cases in males but only nine cases in females which is similar to the findings of Williams et al., where fibroepithelial polyps were one of the common lesions submitted.

It has been demonstrated that some factors, such as age, gender, socioeconomic status, prosthesis use, smoking and alcohol consumption, maybe associated with oral lesions.9 Unfortunately, these data are frequently not provided by surgeons when histopathological examination is requested. The associations related to gender and age observed in the present study could be explained by the cumulative effects of smoking and alcohol consumption. Since the information regarding behavioral factors was not available in the files of the laboratory, we were unable to evaluate these factors in the present study.

CONCLUSIONS
In conclusion, most diagnoses were benign in nature and had an inflammatory etiology. Age and gender may be considered demographic characteristics to be used for the differential diagnosis of major oral lesions.

REFERENCES