

## ORIGINAL ARTICLE

### Evaluation of Incidence of Occurrence of Reactive Lesions of the Oral Cavity in a known population: An Observational Study

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#### ABSTRACT:

**Background:** Reactive hyperplasia comprises a group of fibrous connective tissue lesions that commonly occur in the oral mucosa as a result of injury. The clinical appearance of reactive lesions is very similar to that of neoplastic proliferations. This similarity is a challenging matter for differential diagnosis. Hence; we planned the present research for assessing incidence of occurrence of reactive lesions of the oral cavity. **Materials & methods:** The present study included assessment of incidence of occurrence of reactive lesions of the oral cavity. Sample size in the present study was taken as 200. Consecutive 200 cases that were reported from the department of oral pathology were included in the present study. We also recorded the complete clinical pattern of occurrence of all the reactive lesions. All the results were summarized and were analyzed by SPSS software. **Results:** Mean age of the subjects of the present study was 33.1 years. Pyogenic granuloma and inflammatory fibrous hyperplasia were the most commonly encountered reactive lesions. Others less commonly encountered reactive lesions of the oral cavity were peripheral ossifying fibroma and peripheral giant cell granuloma. **Conclusion:** Pyogenic granuloma and inflammatory fibrous hyperplasia are the most commonly encountered reactive lesions of the oral cavity.

**Key words:** Lesion, Peripheral, Reactive

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**This article may be cited as:** Dar MS, Anjum R, Gupta S, Kaur M. Evaluation of Incidence of Occurrence of Reactive Lesions of the Oral Cavity in a known population: An Observational Study. *Int J Res Health Allied Sci* 2017;3(5):110-112.

#### INTRODUCTION

Reactive hyperplasia comprises a group of fibrous connective tissue lesions that commonly occur in the oral mucosa as a result of injury. Irritation fibroma, pyogenic granuloma, peripheral giant cell granuloma, and cemento-ossifying fibroma are common oral cavity reactive lesions. Other reactive lesions of the oral cavity include epulis fissuratum, inflammatory papillary hyperplasia and inflammatory fibrous hyperplasia. Reactive lesions are commonly seen in the gingiva and their occurrence in other places of the oral cavity, such as the tongue, palate, cheek and floor of the mouth is less common.<sup>1-3</sup> Clinical features of these lesions consist of sessile or pedunculated masses with smooth or injured surfaces, and are seen in different colors, from bright pink to red. Since it is possible to detect lesions with a specific nature based on their histopathological features, these lesions can be divided into vascular and fibrous types. In different studies, the distribution data of oral reactive lesions have shown some differences in type, age, gender, and location of prevalent lesions. The clinical appearance of reactive lesions is very similar to that of neoplastic proliferations. This similarity is a challenging matter for differential diagnosis.<sup>4-7</sup> Hence; we planned the present research for assessing incidence of occurrence of reactive lesions of the oral cavity.

#### MATERIALS & METHODS

The present study was conducted in the department of oral pathology of govt. dental college, Jammu and it included assessment of incidence of occurrence of reactive lesions of the oral cavity. Sample size in the present study was taken as 200. Consecutive 200 cases that were reported from the department of oral pathology were included in the present study. Subjects of all the cases belonged to the age group of 10 to 60 years. Mean age of the subjects of the present study was 33.1 years. Complete demographic and clinical details of all the subjects were obtained. We also recorded the complete clinical pattern of occurrence of all the reactive lesions. All the results were summarized and were analyzed by SPSS software. Univariate regression curve was used for assessment of level of significance.

#### RESULTS

Mean age of the subjects of the present study was 33.1 years. There were 130 males and 70 females in the present study. Pyogenic granuloma and inflammatory fibrous hyperplasia were the most commonly encountered reactive lesions in the present study, found to be present in a combined 33 percent of the patient population. Others less commonly encountered reactive lesions of the oral cavity in the present study were peripheral ossifying fibroma and peripheral giant cell granuloma.

**Table 1:** Incidence of reactive lesions of the oral cavity

Reactive lesions of the oral cavity	Number of subjects	Prevalence (%)
Pyogenic granuloma	33	16.5
Inflammatory fibrous hyperplasia	33	16.5
Peripheral giant cell granuloma	8	4
Peripheral ossifying fibroma	13	6.5
<b>Total</b>	<b>87</b>	<b>43.5</b>

**DISCUSSION**

In the present study, pyogenic granuloma and inflammatory fibrous hyperplasia were the most commonly encountered reactive lesions in the present study, found to be present in a combined 33 percent of the patient population. Others less commonly encountered reactive lesions of the oral cavity in the present study were peripheral ossifying fibroma and peripheral giant cell granuloma. Kadeh H et al determined the frequency and distribution of oral reactive lesions over a period of 7 years (2006–2012). In this retrospective study, available records from the archives of the Department of Pathology, Dental School and the two main hospitals in southeast of Iran (Zahedan) over a period of 7 years (2006–2012) were reviewed. Information relating to the type of reactive lesion, age, gender and location was extracted and recorded on data forms. Of 451 oral lesions, 91 cases (20.2%) were reactive hyperplastic lesions. The most common lesions were pyogenic granuloma and irritation fibroma, respectively. These lesions were more frequent in women (60%) than men (40%). The most common locations of involvement were the gingiva and alveolar mucosa of the mandible, and lesions were more common in the 21–40-year age group. The relationship between age group and reactive lesions was statistically significant (P=0.01). The major findings in this study are broadly similar to the results of previous studies, with differences observed in some cases.<sup>8</sup>

Kashyap B et al analyzed demographic data, histopathological features and compare the clinicopathologic profiles of the diseases to those previously reported. Patient records of the Department of Oral Pathology during one and half year period were reviewed for diagnosis of oral connective tissue reactive hyperplastic lesion. 100 cases (mean age 36 years, male:female ratio 1:2) matched study criterion. The most common affected site was mandibular anterior region and buccal mucosa and the most common lesion was pyogenic granuloma and focal fibrous hyperplasia. All the lesions were more common in the mandible than in the maxilla. PGCG was seen to be equally distributed in males and females. Reactive hyperplastic lesions of the oral connective tissue are more common in females and the majority of the lesions occur in gingiva.<sup>9</sup> AlaAghbali A et al analyzed demographic data of a university department. Patient records of the Department

of Oral Pathology during a four-year period were reviewed for diagnosis of oral connective tissue reactive hyperplastic lesion. 197 cases (mean age, 37.68±18.97; male: female ratio, 1.8:1) matched study criterion. The most common affected site was gingiva (83.9%) and the most common lesion was fibroma (45.2%). Giant cell granuloma and pyogenic granuloma were more common in the maxilla than in the mandible. Pyogenic granuloma was seen to be equally distributed in males and females. The results of the study were overall consistent with the findings of previous studies.<sup>10</sup> Naderi NJ et al determined the frequency and distribution of oral cavity reactive lesions. The medical records of 2068 patients with histopathologic diagnosis of oral cavity reactive lesions were studied. The patients’ clinical data were registered and evaluated retrospectively. The obtained frequency of patients’ age, gender, and anatomic location were analyzed. Peripheral giant cell granuloma was the most prevalent lesion (n=623, 30.12%). This was followed by pyogenic granuloma (n=365, 17.65%), epulis fissuratum (n=327, 15.81%), irritation fibroma (n=288, 13.93%), cemento-ossifying fibroma (n=277, 13.40%), inflammatory fibrous hyperplasia (n=177, 8.56%), and inflammatory papillary hyperplasia (n=11, 0.53%). The age ranged from 2 to 85 years, with a mean of 39.56 years. The lesions were more common in males (n=1219, 58.95%) than in females (n=849, 41.05%). Attached gingiva with 1331 (64.36%) cases was the most frequent place of reactive lesions. Peripheral giant cell granuloma was the most prevalent reactive lesion of the oral cavity.<sup>11</sup>

**CONCLUSION**

Under the lights of above mentioned data, the authors conclude that pyogenic granuloma and inflammatory fibrous hyperplasia are the most commonly encountered reactive lesions of the oral cavity. However; further research is recommended.

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**Source of support:** Nil

**Conflict of interest:** None declared

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