Clinicalreliability in diagnosis of soft oral Exophytic Lesions.

Altaf Hussain Chalkoo[1], Prenika Sharma[2*], Manzoor Ahmed

1-   *Professor and Head of Department Oral medicine and Radiology, Govt. Dental College. Srinagar*
2-   *Post graduate student Department of Oral medicine and Radiology, Govt. Dental College, Srinagar*
3-   *Senior Resident, Department of General Pathology, Government Medical College, Srinagar*
Corresponding author- Dr prenika sharma

Abstract

Aim: - the aim of present study was to assess the correlation between clinical and Histopathological diagnosis of oral Exophytic lesions.

Methods and Material: - 40 patients with Exophytic oral lesions were evaluated in the department. Specialist gave their provisional diagnosis, and then the biopsy sample was taken. Correlation between the clinical and Histopathological diagnosis were determined.

Statistical analysis used: The recorded data was compiled and entered in a spread sheet (Microsoft Excel) and then exported to data editor of SPSS Version 20.0 (SPSS Inc., Chicago, Illinois, USA).

Results:In the present study82.5% (33 subjects) of clinical diagnoses were consistent with Histopathological reports.

Conclusions: *Discrepancy is seen in 17.5% of cases suggesting that, histopathologic diagnosis is mandatory to reach a final diagnosis.*

Key-words: *exophytic lesions, verrucous carcinoma, peripheral ossifying fibroma, angioleiomyoma, squamous cell carcinoma, pseudo epithelial hyperplasia (PEH)*

I Introduction:

Oral disease usually presents as one of the following: (1) change in colour; (2)ulcers;(3) swelling; (4) ulceroproliferative; (5) vesiculobullous or (6) surface textural changes [1-3]. The exophytic lesions may manifest either as extra-osseous/peripheral or as intra-osseous/central lesion.

Exophytic lesion is suggested to be produced by Hypertrophy, hyperplasia, neoplasia, and the pooling of fluid.[4] An enlargement caused by an increase in the size is hypertrophy where as an enlargement due to an increase in the number of normal cells is hyperplasia.

Due to the varied pathogenesis of the diseases, exophytic lesions are often difficult to diagnose clinically and there by yielding diagnostic challenge. Aim of the study is to see the agreement in clinical and pathological diagnosis.

II Subjects and Methods:

The present study is conducted in the department of oral medicine and radiology from January 2016 to December 2016, Government dental college, Srinagar.

40 patients with oral exophytic lesions were included in the study irrespective of the age and the sex.Based on the history of the lesion,clinical presentation, radiographic examination appropriate clinical diagnosis was made.

For histopathologic diagnosis of the lesion incisional or excisional biopsy was taken. Sample was stored in 10% formalin and sent for histopathologic evaluation.

III Statistical Analysis:

The recorded data was compiled and entered in a spreadsheet (Microsoft Excel) and then exported to data editor of SPSS Version 20.0 (SPSS Inc., Chicago, Illinois, USA). Continuous variables were expressed as Mean±SD and categorical variables were summarized as frequencies and percentages. Graphically the data was presented by bar and pie diagrams.
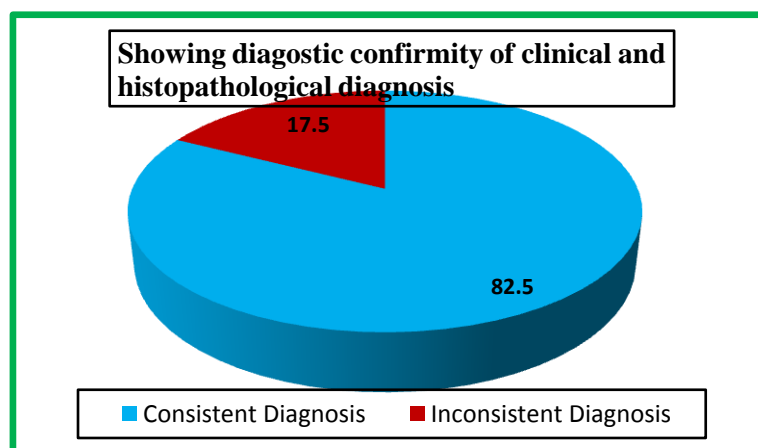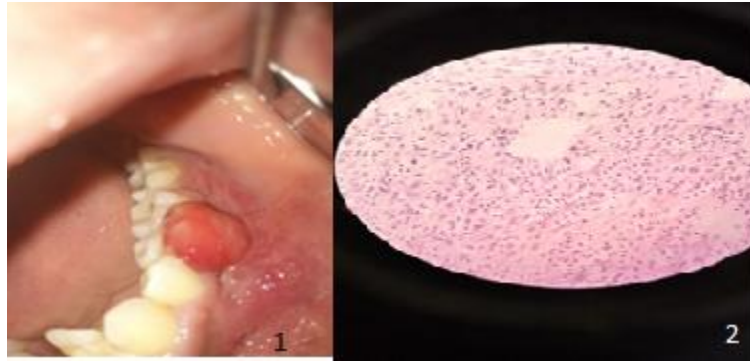
IVResults:

In thestudy majority of the subjects (42.5%) were from the age-group 30-44. The mean age of the subjects was 35.5±13.44 (Table 1). Twenty-two subjects (55%) were males and 18 (45%) were females (table 2).

Table 1: Age distribution of study patients		
Age (years)	**Frequency**	**Percentage**
< 15	2	5.0
15-29	13	32.5
30-44	17	42.5
45-59	6	15.0
≥ 60	2	5.0
Total	40	100
Mean±SD=35.5±13.44		

Table 2: Gender distribution of study patients		
Gender	**Frequency**	**Percentage**
Male	22	55
Female	18	45
Total	40	100

In 17.5% (7 subjects) of the cases clinical diagnosis was not confirmed by Histopathological reports. Greatest consistency seen in cases of fibrous hyperplasia/fibroma (20 cases) and inconsistency was seen in few cases. A case of angioleiomyoma was misdiagnosed as pyogenic granuloma (picture 1, 2). Another was a case of verrucous carcinoma of buccal mucosa was presented squamous cell carcinoma. A case of huge squamous papilloma of buccal mucosa presented as verrucous carcinoma.
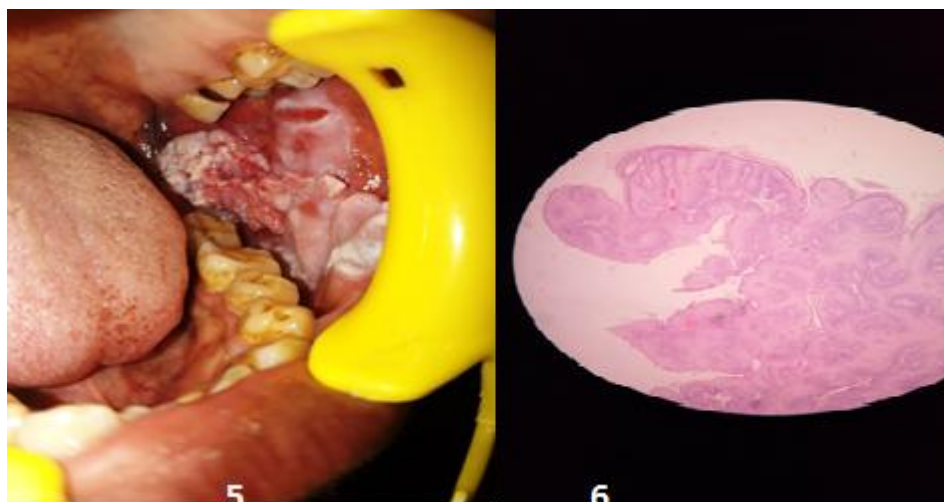

Showing diagostic confirmity of clinical and histopathological diagnosis

17.5

82.5

■ Consistent Diagnosis ■ Inconsistent Diagnosis

Picture 1 and 2 angioleiomyoma on mandibular gingiva and and its histopathological picture.
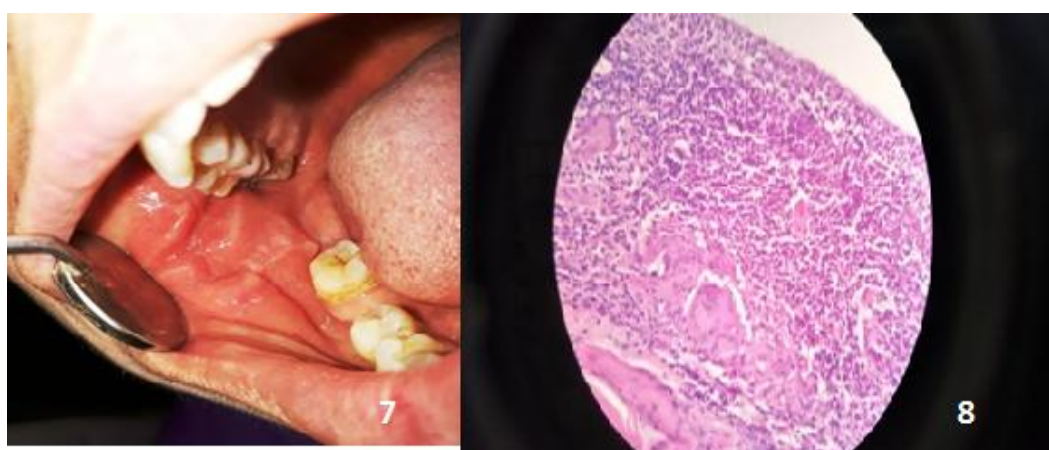

Picture3 showing pleomorphic adenoma on the palate.

picture 4- peripheral ossifying fibroma in maxillary anterior region.

Picture 5 and 6 showing clinical and histopathological picture of squamous papilloma.

Picture 7 and 8 showing chronic granulomatous pathology on buccal mucosa and its Histopathological photograph.

V Discussion:

The aim of the study was to see the correlation between the clinical and histopathologic diagnosis of oral exophytic lesion. In 82.5% (33 subjects) cases clinical diagnosis was consistent with the Histopathological diagnosis and rest of the cases 17.5% (7 subjects) result differed.

For proper clinical diagnosis it is important to take detailed history about the lesion along with complete examination in form of proper inspection, palpation, auscultation and percussion.

The information on clinical character and histological origin of the exophytic growth are two important parameters in decision making. The clinical characters depends on consistency of the lesion (soft/ hard),colour of the lesion, shape of the swelling, base of the exophytic growth, location of the lesion (anterior/ posterior jaw; labial/buccal mucosa). Whereas the histological parameter takes into consideration tissue origin of the growth (such as bony, dental, gingival or epithelial). The obtained information should be analysed step by step for successful diagnosis of the lesion.[4]

Very few studies are conducted similar to our study; most of the studies were based on retrospective data from records.

One of the studies is done by Javad Sarabadani et al evaluated 73 patients with peripheral exophytic lesions. His study showed 81.7% consistency between clinical and histopathologicdiagnoses. He observed lack of consistency in clinical and histopathologic diagnosis of squamous cell carcinoma (SCC) and verrucous carcinoma. [8] Similar to our study.

Marina MENDEZ et al reported the highest rate of agreement for periapical lesions, followed by potentially malignant disorders and non-neoplastic proliferative disorders whereas

mesenchymaltumours reported lower rates of Histopathological confirmation of the clinical impression. [6] Kush J. Patel et al studied the epidemiology of oral soft tissue lesions to determine the concordance diagnosis achieved by general dental practitioners and by specialists, specialists were more accurate in diagnosing a malignant or premalignant lesion. [7] Basically, a final diagnosis depends on the evaluation of all the clinical and radiographic findings and histopathology of the lesion, leading to a diagnostic agreement that is acceptable to all. [8]

Clinical diagnosis of some exophytic lesions necessitates radiographic examination. [9] It has been seen that a close dialogue between the referring clinician and the reporting pathologist is beneficial to improve the accuracy of the histopathologic diagnosis, such as the differentiation between a diagnoses of a lichenoid reaction from lichen planus on the basis of information about recent drug therapy. [7].

Similarities have been seen in the clinical pictures of many exophytic lesions. In such cases Histopathological diagnosis is considered as final diagnosis.

As we saw in our study angioleiomyoma was clinically presented as peripheral giant cell lesion, squamous cell carcinoma presented as verrucous cell carcinoma, mucoepidermoid carcinoma presented as mucocele, hugesquamous papilloma was clinically misdiagnosed as verrucous carcinoma.

In a well-developed case of verrucous carcinoma, the clinical pathologic diagnosis is relatively easy to understand but papillary type of squamous cell carcinoma resembles verrucous carcinoma. [10] Verrucous carcinoma is a low-grade variation of SCC, it characterized by a bulbous growth that pushes into the underlying stroma rather than invading it, which is typical of SCC.[8]
The squamous papillomas are benign exophytic growth and it appears as pedunculated or sessile, white or normal colored cauliflower-like projections that arise from the mucosal surface. Its average size is less than 1.0 cm. The most common sites are the palate- uvula area followed by tongue and lips. [11] Large papillomas resemble early verrucous carcinoma [12]

Leiomyomas are smooth muscle neoplasms that may develop from aberrant smooth muscle cell and commonly seen in the gut and the body of the uterus, whereas in the mouth the lips are most commonly involved. [14] Most of the vascular Leiomyomas are nodular, painless, slow growth lesions, less than 2 cm in diameter, and of a colour that can vary from white to blue. [6] From the clinical appearance, it is very difficult to differentiate a leiomyoma from other mesenchymal tumours such as fibromas, neurofibromas, lipomas, mucoceles or the leiomyosarcoma, the malignant counterpart [7, 13]

Pseudoepitheliomatous hyperplasia (PEH) is seen as reactive response of epithelium in response to wide variety of conditions including infections, neoplasia, inflammation and trauma. It closely mimics squamous cell carcinoma (SCC). [15] It is often difficult to distinguish PEH from SCC because of histological similarities especially in small oral biopsy specimens. Histopathological features of SCC include presence of nuclear atypia, increased mitosis, individual necrotic keratinocytes, and epithelial invasion deep into the connective tissue which is absent in PEH. In mucosal membranes, distinguishing SCC from PEH becomes critical because mucosal SCC has poor prognosis with early local infiltration and lymph node metastasis.

VI. Conclusion

We draw the conclusion that clinical similarities between the lesions sometimes emerge as diagnostic challenge for the diagnostician. Here final diagnosis solely depend on histopathology

In our study failure reported in 17.5% clinical diagnosis due to similaries in clinical presentation of mesenchymal tumours.

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