© November 2025 | IJIRT | Volume 12 Issue 6 | ISSN: 2349-6002

Clinicopathological Spectrum of Oral Hyperkeratotic Lesions Masquerading as Keratin Horn

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***Abstract*—Keratin horn is a rare hyperkeratotic epithelial lesion resembling an animal horn. Such lesions are predominant in sites that are exposed to sun light. We hereby discuss an unusual presentation of a keratin horn in the oral mucosa along the inner aspect of left buccal mucosa. Histopathological examination shows hyperkeratotic epithelium with no features of dysplasia. The patient showed no recurrence on six months follow up.**

I. INTRODUCTION

Keratin horn also termed as cornu cutaneum is a proliferative mass of keratin [1] commonly presenting itself in epidermis or dermis [2]. It clinically is a firm, conical, straight or curved projection resembling that of an animal horn except that there is no presence of any central ossification [3]. The colour of this lump may range between white to yellow or brown to black [1] and is said to have greater height when compared to its base dimension [4]. This keratin proliferation accounts for any local irritation, immune associated factors or more extensively may represent an iceberg of underlying dysplasia or malignant conditions [5]. Its presentation in oral mucosal surfaces is a rare phenomenon and one such case reported as been emphasized in this article.

II. CASE REPORT

A 27-year- old male patient reported with a chief complaint of a small growth in the inner aspect of his left buccal mucosa. He first noticed the lesion before 3 months after which there was a gradual increase in size. Patient does not give any relevant medical or dental history.

On intraoral examination, a small exophytic growth was seen on the inner aspect of his left buccal mucosa in relation to the angle of mouth. The lesion was white in colour, irregular in shape and a glossy surface measuring 3mm*4 mm in size. (Fig 1).On palpation the lesion was non-tender and firm in consistency and adherent to the underlying mucosa. Hard tissue examination revealed a healthy dentition with presence of all 32 teeth and no relevant pathological findings.

Fig 1. White exophytic growth in left buccal mucosa

The lesion was surgically excised and sent for histopathological examination. The gross specimen was white in colour, with irregular surface, firm on palpation and measured about 3*4mm in diameter.

The histopathology of the given section revealed epithelium and connective tissue The epithelium was hyperplastic exhibiting features like hyperkeratosis, acanthosis and koilocyte-like changes. The underlying connective-tissue depicted collagen fibres, few inflammatory cells and blood vessels. (Fig 2(a), 2(b)) Correlating with the clinical picture, histopathology of the specimen was suggestive of Mucosal keratin horn.

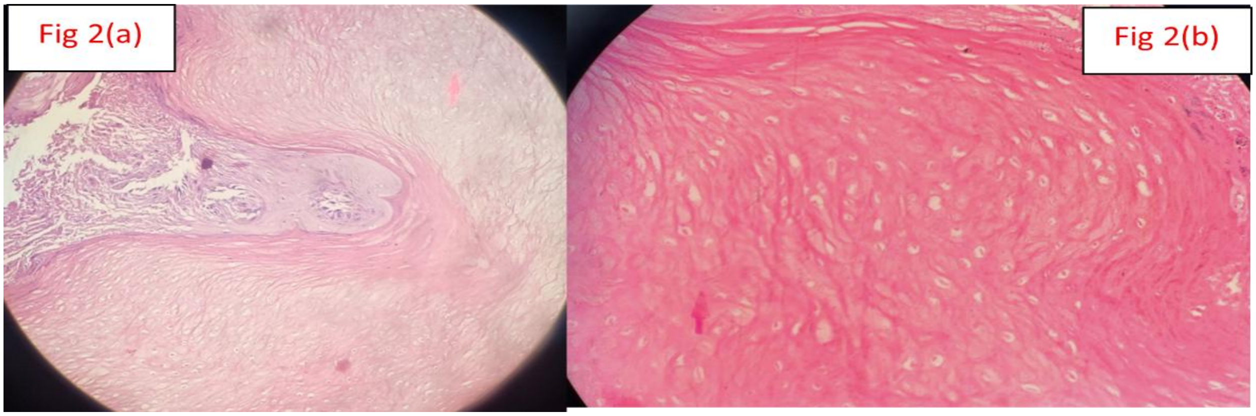

Fig 2a. Low power view showing hyperplastic epithelium with hyperkeratosis. Fig 2b. High power view showing acanthosis and koilocytic changes in epithelial cells

The surgical site exhibited considerable healing at the follow up done at two weeks interval. The patient showed no evidence of recurrence at three months and six months follow up.

III. DISCUSSION

Oral white lesions are of diagnostic challenge till date because of their varying presentations as a patch, exophytic growth, pseudomembranous form or plaque. These lesions represent a wide spectrum of aetiology and various prognoses [6]. A cornu cutaneum (Latin: cutaneous horn) [2] is an aberrant proliferation of stratum corneum resulting in a keratinous exophytic growth resembling that of animal horn [5]. Although it is commonly said to have an aetiology of photodamage, ageing, or chronic adhesiveness causing cellular dysfunction the exact mechanism or trigger for its development is not known [5]. It is also said to be an extension of underlying cutaneous infection such as a wart, seborrheic or actinic keratosis, dermatofibroma and keratoacanthoma, [2,4] although in our case it is of unknown aetiology and any contributing underlying pathology was also absent. Its common sites of presentation include sun exposed surfaces such as face and scalp but rarely it can also present in genital areas or in oral mucosal surface [1]. In other cases, reported in relation to the oral cavity, all three of them [1,4,7] reported their sit of presentation more towards the outer border of angle of mouth and were associated with underlying either dysplastic changes or malignancy. Site of the lesion in our article was pertaining to inner aspect of the left buccal mucosa closer to the angle of mouth shunning the chances for any radiation induced aetiology. On this aspect this accounts for first reported case that is not associated with any dysplastic changes with its site being the inner aspect of oral mucosa. A study done by Copcu et'al, [3] done on cornu cutaneum lesions, presenting on skin and other dorsal sites though 60% cases were benign the others were found to be associated with underlying malignancies. On taking into account the lesions' association to underlying pathologies, a minimum of six-month follow up for at least two years is required to ensure maintenance phase for the patient.

IV. CONCLUSION

Oral presentations of exophytic white lesions have varying diagnostic challenges. This is a rare case of mucosal keratin horn with an oral presentation exhibiting a common histopathologic picture analogous to a number of lesions such as papilloma, verruca vulgaris, fibroma, etc., Correlation of clinical and microscopic findings and in consideration of medical history a diagnosis of cornu cutaneum of oral mucosa was made. Such explicit clinical presentation and histopathologic picture for each lesion is crucial for any an accurate diagnosis and management to be designed and executed by the dentist.

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