

## Case Report

## Heck's Disease: Enigmatic to clinician

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## ABSTRACT

Diagnosis of peripheral oral exophytic lesions can be quite challenging clinically. There is variety of maculo, papulo nodular lesions are seen in oral cavity. There are numerous types of papulo nodular lesions that occur due to bacterial, fungal or viral infections along with deleterious habits like smoking and chewing tobacco. Focal epithelial hyperplasia also known as Heck's disease is one of the rare viral infections caused by human papilloma virus. These are asymptomatic elevated nodules seen in oral mucosa. This paper reports a case of focal epithelial hyperplasia caused by HPV subtype 32 that was confirmed through polymerase chain reaction (PCR). In this case reported a 64-year-old male is affected as the lesion is rarely seen among elderly individual. The case report empathizes on differential diagnosis that was clinically identical with the lesion. Final diagnosis was reached based on clinical examination, histopathological findings and polymerase chain reaction report.

**Keywords:** Buccal mucosa, focal epithelial hyperplasia, Heck's disease, human papilloma virus

## Introduction

Heck's disease is also known as focal epithelial hyperplasia (FEH) and multifocal papilloma. It was named by Dr Archard Heck and its team in the year 1965.<sup>1</sup> It is a rare contagious, asymptomatic, and benign disease form of viral infection occurring in oral mucosa. It mostly involves the younger individuals.<sup>1</sup> The prime etiological factor is human papilloma virus (HPV) type 13 or 32. Subtype 32 of HPV tends to cause the disease more in the older individuals. Intraorally both keratinized and non-keratinized surfaces may get affected by HPV.

Initially it was noted in Indian children from North and South America suffering from verruciform papules and nodules on the oral mucosa, sometimes it was also seen in anal and genital mucosa. Presently it is seen in numerous ethnic groups such as Eskimos, North, South, and Central American Indians but relatively few cases reported of Caucasians population and is rarely seen in Asian.<sup>2,3,4,5</sup> Though it is mostly seen in adolescent age group. It has equal predilection in both males and females.<sup>6,7</sup> The clinical manifestation of these lesion are numerous small whitish or normal in color papules or nodules in oral mucosa, upper lip

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and labial mucosa and tongue region , and less commonly noted on the upper labial mucosa, gingiva and palate region.<sup>8</sup>

## Case report

A 64 year old male farmer by occupation reported to the department of oral medicine in dental hospital in Gwalior with complain of small lump left buccal mucosa since last 5 months. The lesion has been present since 5 month and it was asymptomatic. His only concern was lesion often get traumatized while chewing food. There is no relevant past medical history except for hypertension for which he is taking antihypertensive drugs since last 8 years. Patient had no deleterious habits. On clinical intraoral examination there was a single well defined pale whitish soft, sessile papule involving left buccal mucosa [Figure 1]. Lesion was discrete and well demarcated. The surface was rough. The lesion was not ulcerated. Multiple small papules coalesce into cluster closely together that the mucosal area takes on a cobblestone or fissured appearance forming a large one measuring around approximately 1 cm in diameter. Provisional diagnosis given was focal epithelial hyperplasia.



**Figure 1 :** Displaying intraoral whitish colour, papulo nodules, sessile, coalescent growth located on the left buccal mucosa.

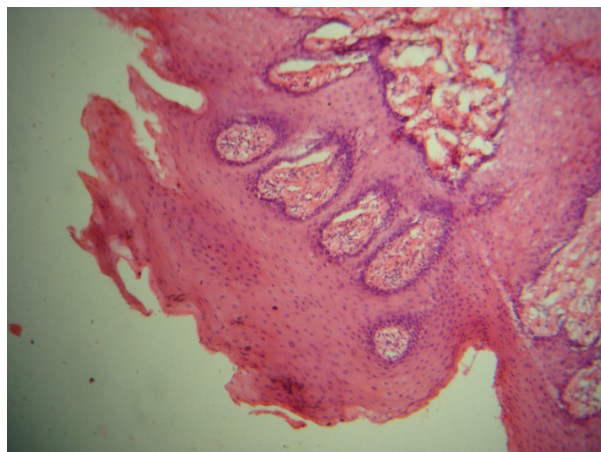
An excision biopsy was performed under local anesthesia [Figure 2]. Biopsy specimen were preserved in 10% formalin was sent for histopathological examination and Polymerase Chain Reaction (PCR) analysis to confirm the exact etiology of the lesion. Histopathological examination under hematoxylin and eosin staining reveals hyperplasia with acanthosis. It showed epithelial hyperplasia along with elongated rete ridges. Spinous layer exhibited with parakeratosis, anisokaryosis and koilocytosis [Figure 3]. There was marked amount of nuclear changes with mitotic bodies which is one of the characteristic of HPV. Further the wax block was given for PCR analysis showed human papillomavirus subtype 32 DNA. This leads to final diagnosis known as Heck's disease. Follow up was done after 3 months that showed no recurrence with complete healing of the site.

## Discussion

In present case it affected a 64-year-old man, which is very uncommon to note at this particular age group. The majority of FEH is seen in the Americas and Caucasians is experienced by young individuals.<sup>1,9</sup>



**Figure 2:** Showing Excised Sample for Biopsy



**Figure 3:** Hemotoxin and eosin staining photomicrographs showing characteristic features of Focal epithelial hyperplasia with acanthosis and with long rete ridges.

Reduced immune system leaves the patient vulnerable to opportunistic infections, including HPV infections, this could be one of the reason that it is seen in this elderly individual who had poor oral hygiene. HPV 13 and 32 types did not show malignant potential according to researcher.<sup>7</sup> in this case it was seen in buccal mucosa though mostly seen over labial mucosa. As a practicing oral physician any unnatural clinical presentation inside oral cavity leads suspicious of any tumor or malignant change. So to rule out all this dilemma compete diagnostic protocol need to be followed. Final diagnosis of Heck's disease was given by eliminating the differential diagnosis with condylomata acuminata, inflammatory fibrous hyperplasia, papillary hyperplasia, verruca vulgaris, papilloma, Irritation fibroma, verusiform xantoma, juvenile papillomatosis and syndromes such as multiple endocrine neoplasia, Neurofibromatosis, Cowden and Goltz-Gorlin.<sup>8</sup> Postoperative examination after one month revealed complete healing of the soft tissue from where the lesions were excised, and no new lesions were seen.

Treatment is not a major concern as most lesions are asymptomatic and frequently undergo spontaneous regression moreover there is no tendency to malignant transformation.<sup>9,10</sup> Functional and esthetic concern among this patient is managed by simple excision of the lesion. Other treatment modalities which can be opted are laser, electrocoagulation, topical agents such as imiquimod, retinoic acid or trichloroacetic acid.<sup>11,12</sup>

## Conclusion

Though mostly it is seen among younger age group it can manifest in older individuals. It has a rare prevalence in Southeast Asian countries like India. Human papillomavirus (HPV) which is highly contagious in nature therefore, high level care has to be taken while examine and treating these lesions. It poses a challenge to uninformed oral physicians and long-term follow-up was advised to monitor the status of the lesions.

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