Oral Verruca Vulgaris: Report Of Two Rare Cases And Review

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Abstract : Varieties of verrucous and papillary lesions affect skin as well as oral mucosa. These are either benign or reactive. Verruca vulgaris is one of the most commonly observed skin growths, widely known as "wart" and a lesion of childhood. Intraoral warts can occur at any age but are most commonly seen in age group of 30-50 years with equal incidence in both genders. It is found commonly on the palate followed by lip, tongue, buccal mucosa and rarely seen on gingiva. Conservative surgical excision with safe margins is the treatment of choice. Two rare case reports of Verruca vulgaris present on very rare intra oral site, gingiva have been discussed in this article. Key message: Papillary and verrucous lesions are not uncommon in oral cavity but reported cases of oral Verruca vulgaris are very rare. Gingiva is again a very rare site for oral warts. [Joshi M et al NJIRM 2013; 4(4) : 145-148]

Key Words: Verruca vulgaris, Gingiva, Benign, Reactive, Wart.

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Introduction: Papillary and verruciform epithelial proliferations are fairly common in oral and paraoral region, representing at least 3% of biopsied oral lesions. They may be single or multiple, with pedunculated or sessile base or diffusely involve broad areas of the oral mucosa. Various intraoral exophytic growths include squamous papilloma, focal epithelial hyperplasia, condyloma accuminatum (genital warts), verruca vulgaris (common wart), verrucous leukoplakia, verruciform xanthoma, verrucous carcinoma etc [1]. Wart is the result of inoculation of human papilloma virus (HPV) and has long been recognized with various clinical expressions[2]. The viral inclusion is commonly found in the nuclei of vacuolated cells present in the granular layer and stratum malpighii [3]. The virus causes a benign epithelial hyperplasia giving the lesion a hard, hyperkeratinized appearance, because of which the lesion is often called verrucae vulgaris. Intraoral warts can occur at any age but are most commonly seen in age group of 30-50 years with equal incidence in both genders[4]. Reported prevalence of oral warts in immunocompetent hosts is <0.5% [5]. Usually the lesion is asymptomatic, but may cause cosmetic problems if they are present on lips [6]. Infectivity rate of oral wart is extremely low and are seen most commonly on the palate followed by lip, tongue, buccal mucosa and rarely on the gingiva. It has acroform, acro-papilloform and cryptiform surface producing conspicuous hyperkeratosis, and elevated with discrete borders [7, 8]. Here we discuss two such rare case reports of oral warts on very rare oral site, gingiva.

Case 1 : A-26-year-old male reported to the outpatient department of oral medicine with complaint of discoloration of teeth. Intra oral examination revealed solitary sessile growth, present on palatal gingiva of size 4x3 mm in relation to #24 and #25 giving finger like projections and keratotic surface

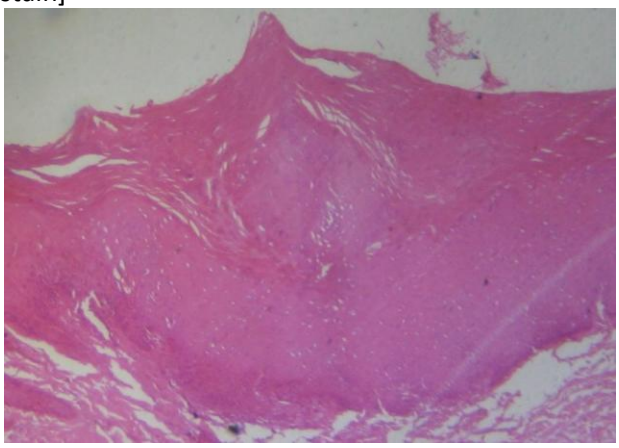
Figure 1: Intra oral exophytic Verrucous growth on palatal gingiva

Case 2: A 55-year-old male reported to the outpatient department of oral medicine with complaint of replacement of his missing teeth. Intra oral examination revealed multiple small papillary sessile, painless keratotic growths present on palatal gingiva in relation to tooth #27

Figure 2: Intra oral small multiple papillary/Verrucous growths present on palatal gingiva

In both the cases there was neither tenderness nor bleeding on palpation of the lesion. No similar lesions were noted elsewhere in body. Both the cases were exposed to surgical excision under proper aseptic precautions & local anesthesia. Excised specimen was sent for histopathological examination, which revealed hyper orthokeratinized stratified squamous epithelium thrown into small papillary projections supported by thin connective tissue cores. The epithelium was acanthotic with long rete pegs, and covered by thick layer of keratin, suggestive of Verruca Vulgaris

Figure 3: Photomicrograph showing features of Verruca vulgaris [magnification of 100X with H& E stain]



Discussion: Verruca vulgaris, also known as the common wart, has been estimated to occur in 10% of children and young adults, with the range of greatest incidence between the ages of 12-16 years [9]. Different forms of wart makes the differential diagnosis complex. Its association with human papilloma virus (HPV) has been well documented [10]. Human papilloma viruses are double-stranded DNA viruses that can induce hyperplasic, papillomatous and verrucous squamous cell lesions in the skin and various mucosal sites [11].

The first description of common wart dates back 25 AD when Celsus described the clinical features of the plantar, genital and common skin wart. In 1907, Ciuffo reported the infectious nature of warts [12]. These are benign, elevated, firm nodules with characteristic papillomatous surface projections. The most common site of occurrence is fingers. Oral lesions are relatively rare and usually caused by auto inoculation from lesions on the fingers and hands [4]. Both cases were devoid of any skin lesions.

The term "*Gingival wart*" was first coined by Tomes in 1848 and described it as a localized, benign HPV induced epithelial hyperplasia on gingiva [1]. Intra oral warts can occur at any age with preponderance in age group of 30-50 years and equal incidence in both genders. Its association with HPV has raised questions about its association with oral squamous cell carcinoma [11, 12]. The virus lives within the epithelium of the lesion and can be seen microscopically as intra nuclear viral inclusions and specially altered clear cells with small, pyknotic nuclei (koilocytes). The resulting growth in most of the cases eventually disappears after a year or two even if left untreated. Hence exact role of the virus in the etiopathogenesis of these lesions is yet unclear.

Differential diagnosis of oral warts as discussed earlier includes squamous papilloma, condyloma acuminatum, focal epithelial hyperplasia, exophytic squamous cell carcinoma, keratocanthoma, exophytic verrucous carcinoma and verruciform xanthoma[13] which share similar clinical impression but can only be differentiated on the basis of histopathological examination.

Conservative surgical excision with safe margins is the treatment of choice. Frequently similar lesions if left untreated may resolve spontaneously and those that persist should be removed surgically either by routine excision or laser ablation. Intralesional injections should be used as a last resort [14, 15]. In both the cases conservative surgical excision with safe margins was performed. There are many treatment options for cutaneous warts, with topical salicylic acid therapy identified as the most effective by the Cochrane review [16]. Their report suggested that there is no other safe and effective therapy in regard to higher cure rates and fewer adverse effects. Other therapies include cryotherapy, imiquod, bleomycin, intralesional immunotherapy, pulsed dye laser therapy[11] and alternative & complementary medicine.

Conclusion : Dental professional routinely come across many intra oral soft tissue growths that appear almost in 4% of patients, and are never biopsied. Such oral mucosal masses with irregular or nodular surface alterations are of special concern. With lack of knowledge all may appear to be papilloma, but there are several diverse malignancies, contagious infections, sexually transmitted diseases, vascular and reparative lesions, and viral proliferations associated with a wide range of different types of human papilloma virus. Therefore clinical impression for particular lesion is of paramount importance and dental professional may be the first person to diagnose those abnormalities.

Key message: Common "wart", also known as Verruca vulgaris, is the lesions affecting skin. Intra oral warts, although rare, are diagnostic challenge for dental professional and must be differentiated from other similar lesions.

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