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Verrucous Carcinoma: A Case Report

Abstract

Verrucous carcinoma is an uncommon variant of squamous cell carcinoma that seen in individuals who chew tobacco or use snuffs orally. The oral cavity is the most common site of verrucous carcinoma though the tumor may occur in various head and neck locations, as well as in the genitalia. Here we present a case report of oral verrucous carcinoma that was provisionally diagnosed as verrucous leukoplakia but histpathologically turned to be verrucous carcinoma.

Key Words

Verrucous carcinoma; squamous cell carcinoma; verrucous Leukoplakia

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INTRODUCTION

By definition; verrucous carcinoma is a relatively uncommon, locally aggressive, clinically exophytic, low-grade, slow-growing, well-differentiated squamous cell carcinoma with minimal metastatic potential.[1] In 1948, Ackerman[1] first described verrucous carcinoma in the oral cavity as a low-grade tumor that is considered as a clinicopathological variant of squamous cell carcinoma.[2]

CASE REPORT

A 57 years old male patient reported with a chief complaint of non healing ulcer in the left side of the cheek for past 3 years. He gave history of a small ulcer in the left side of the cheek which is sudden in onset, gradually progressed to attain the present size and was associated with the pain for the past 1 month which is sudden in onset, continous in nature, dull ache, with moderate intensity, intensity of pain increases on mastication and no relieving factors. He was a Tobacco chewer since 30 years at a frequency of 6-8 times a day. He was otherwise healthy and vital signs were with in normal limits. On Local examination, left submandibular lymph node was palpable which is solitary, measuring approximately 0.5 x 1 cm, mobile, firm in consistency and tender. Extraorally, a discrete areas of homogenous plaque seen on the both right and left side of the lower lip which is covered by pseudomembrane extending to the angle of the mouth (Fig. 1), secondary changes like bleeding present. On palpation all inspectory findings with respect to site, extention are confirmed, rubbery in consistency with mild tenderness. On intraoral examination, a solitary white non scrapable plaque seen in the left buccal mucosa which is 2 x 3cm in size and irregular in shape extending posteriorly to the ptreygomandibular raphe ,anteriorly to the mid of the lower labial mucosa superiorly to the upper buccal vestibule, inferiorly to the crest of alveolar ridge (Fig. 2). Similarly, a solitary white plaque seen on the right buccal mucosa which is 3 x 4cm in size and irregular in shape extending from corner of the mouth to the pterygomandibular raphae. Inferiorly to the lower buccal vestibule and superiorly 5 cm short of upper vestibule (Fig. 3). On palpation, all the inspectory findings with respect to site, extent are confirmed rough in consistency and non-tender. Considering the positive findings of 57 years old male patient, painless growth history of betel quid along with tobacco chewing on both sides, white proliferative growth on both sides of the buccal mucosa, firm in consistency we came to a provisional diagnosis of verrucous leukoplakia with differential diagnosis of Chronic hyperplastic candidiasis, Verrucous carcinoma, Verrucous hyperplasia, Squamous cell carcinoma. On investigation of blood reports were apparently normal. Biopsy of the lesion showed parakeratinizing stratified squamous epithelium showing hyper-parakeratosis, acanthosis, and mild

Fig. 1: Extra oral profile

Fig. 2: Clinical intra oral picture showing white exophytic growth

Fig. 3: Clinical intra oral picture showing white exophytic growth

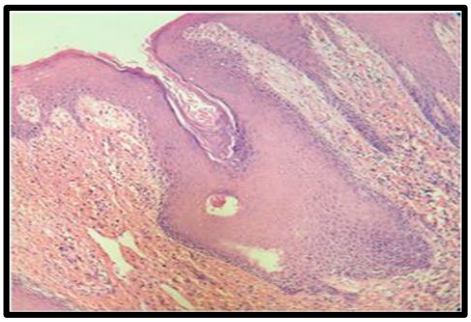

Fig. 2: Histological profile

dysplasia and broad pushing rete-ridges which enter the underlying stroma. The underlying stroma shows loose connective tissue. Numerous large dilated blood vessels and dense chronic inflammatory cells are evident in the sub-epithelial stroma. There is no break in the basement membrane. Deeper stroma shows skeletal muscle and longer vessels (Fig. 4). Based on Histopathological report of the given section and the clinical presentation the final diagnosis was Verrucous Carcinoma. Habit Counseling was done and surgical excision of the growth under general anaesthesia was done. He is under regular follow up with good prognosis.

DISCUSSION

Oral verrucous carcinoma is a rare variant of oral squamous cell carcinoma. In 1948, Lauren V. Ackermann first described this neoplasm of the oral mucous membrane, which is now also known as ‘‘Verrucous carcinoma of Ackermann’’ or ‘‘Ackermann’s tumor’’.[3] The oral cavity is the most common site of occurrence. In addition, it is known to occur in the larynx, pyriform sinus, esophagus, nasal cavity and paranasal sinuses, external auditory meatus, lacrimal duct, skin, scrotum, penis, vulva, vagina, uterine cervix, perineum, and the leg.[4] Verrucous carcinoma is reported predominantly in whites and seen in males over the sixth decade. In terms of tumor biology, Oral verrucous carcinoma is distinct in its slow growth and ability to become locally aggressive if not treated appropriately. However, even with local tumors progression, it is intriguing that regional or distant metastasis is rare.[5] Verrucous hyperplasia and verrucous carcinoma are indistinguishable clinically where the clinical association with leukoplakia is significant, and it is evident that untreated leukoplakia may develop into a verrucous hyperplasia or verrucous carcinoma over the time.[6] Verrucous hyperplasia is a forerunner of verrucous carcinoma, and transition is so consistent that once diagnosed, should be treated as verrucous carcinoma.[7] The etiopathogenesis of Oral verrucous carcinoma is unclear; however, studies have shown strong associations with tobacco use, including inhaled as well as smokeless tobacco, alcohol, and opportunist viral activity associated with human papilloma virus (HPV). Tobacco chewing is a significant etiologic factor for the development of Oral verrucous carcinoma.[6,7] Lesions often develop at the site where the tobacco was placed habitually so as in the case presented here. chemical carcinogenesis induced by smoking and chewing tobacco,–alcohol consumption and betel nut chewing, and chronic inflammation.[7] In the present case, our patient gave a clear history of tobacco chewing with keeping tobacco quid. Schistosomiasis is associated with verrucous carcinoma of the bladder. More recently, studies have further confirmed the association between

HPV and Oral verrucous carcinoma by detecting HPV– DNA types 6, 11, 16, and 18 by polymerase chain reaction (PCR), restriction fragment analysis, and DNA slot–blot hybridization.[8] Oral verrucous carcinoma has a characteristic gross appearance. These lesions are almost always large, exophytic, soft, fungating, slow growing neoplasms with a pebbly mamillated surface. Verrucous carcinoma most often arises in the oral cavity, particularly the cheek mucosa, gingivae and retromolar areas, remains the most common site of origin. In verrucous carcinoma, regional lymph nodes are often tender and enlarged because of inflammatory involvement, simulating metastatic tumor.[8,9] In our case presented here shows the tender palpable lymoh nodes. Microscopically, verrucous carcinomas consist of thickened club shaped filiform projections lined with thick, well-differentiated squamous epithelium with marked surface keratinisation ("church-spire" keratosis). Parakeratin typically fills the numerous clefts or crypts (parakeratin plugs) between the surface projections.[9] In the presented case histopathological features show parakeratinizing stratified squamous epithelium showing hyperparakeratosis, acanthosis, and mild dysplasia and broad pushing rete-ridges. Surgical excision with adequate margins of resection seems to be the clear preference for treatment. Recurrences are frequent and require additional treatments. Other treatment modalities such as cytostatic drugs can be considered to delay the tumor growth.[10]

CONCLUSION

Verrucous carcinoma mortality usually is due to local invasion rather than metastatic spread. Thus patients with verrucous carcinoma have a favorable prognosis, even though the course of verrucous carcinoma lesions is characterized by slow, continuous, local growth, complete surgical removal with sufficient normal margins is the primary mode of treatment..

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