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Case Report *Medical research*

Verrucous carcinoma – a case report

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ABSTRACT

Verrucous carcinoma is a rare warty variant of squamous cell carcinoma characterised by a predominantly exophytic growth.It commonly affect oral cavity with buccal mucosa being the commonest site affected .This form of cancer is often seen in those who chew tabacco or use snuff orally. It is mostly misdiagnosed by other benign lesions like verrucous leukoplakia , papilloma, verrucous hyperplasias of oral cavity .it is usually associated with premalignant lesions like leukoplakia,oral submucous fibrosis indicate "field cancerization" which can lead to multiple recurrences. henceforth early diagnosis and surgical excision with wide margins and appropriate reconstruction is necessary to optimaze the disease and final outcome.

Here we are presenting a case of oral verrucous carcinoma associated with oral submucous fibrosis which was misdiagnosed earlier.

Keywords: Verrucous carcinoma, Verrucous leukoplakia, Verrucous hyperplasia

INTRODUCTION

Oral verrucous carcinoma is a tumor which is rare one with a white and warty growth having a broad base attachment. [1]It is tumor which is slow growing , a variant of squamous cell carcinoma and first described by lauren v Ackermann in 1948,also it is called' Verrucous carcinoma of Ackermann in 1948 or Ackermann's tumor [1, 2, 5]It is present in oral cavity, other sites being 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.[2, 5]In oral cavity involved areas are buccal mucosa, gingival, tongue, mandibular alveolar crest. [1]Causes of Verrucous carcinoma are tobacco in the smokeless, fovum, alcohol, betel. [1, 2, 4, 5] Human papilloma virus (HPV) has also role in etiology of verrucous carcinoma,but matter of debate .Many studies have been done, to correlate HPV and oral vc, all have been non – contributory. [1]Rarely distant metastasis and lymph node involvement is seen. [2, 4]The differential diagnosis are papilloma, proliferative verrucous leukoplakia, verrucous leukoplakia, papillary scc. [6]Treatment of choice is surgical excision and skin grafting, extent of

surgerical margin and adjuvant radiotherapy are still controversial. [4]Verrucous carcinoma may arise from pre existing potentially malignant lesions like leukoplakia and osmf. [10] Oral potentially malignant disorders may be the predisposing factors in oral verrucous carcinoma [7, 11]

Here we present a case of verrucous carcinoma with oral submucous fibrosis which was misdiagnosed earlier.

A CASE REPORT

A year old male patient reported to our department with chief complaint of a white patch in the right side posterior cheek mucosa since 3 months. Patch was slowly increasing in size. He had also given history of chronic irritation in same region from distal surface of 18. Mild intermittent pain was present in the same region since few days usually during mastication. Burning sensation was present in the cheek mucosa on both sides since few months. There was no relevant medical history. Patient used to chew Gutkha 4-5 packets per day since last 9 years. A dentist had given diagnosis of benign lesions like papilloma or frictional keratosis and advised for medical treatment. No abnormality was found on extraoral examination (Fig 1,2,3). On intraoral examination, mouth opening was reduced. There was a well-circumscribed, white colored exophytic growth around 1 cm in size on the right retromolar mucosa. The growth was immovable, fixed with underlying tissue (Fig 4). Generalized blanching of oral mucosa and submucosal fibrotic bands were present especially in the posterior buccal mucosa.(Fig 4 & 5) Provisional diagnosis of verrucous leukoplakia associated with oral submucous fibrosis was given. Differential diagnosis of verrucous carcinoma (VC) was considered on the basis of fixity. Radiographic analysis showed no evidence of local bony metastasis. (Fig.6). Incisional biopsy confimed the diagnosis of VC. Bilateral fibrotomy followed by deep and wide excision of the lesion with free skin grafting was carried out.(Fig 7, 8 & Fig 9). Extraction of 18, 48 followed by odontoplasty of 17 were also done. Patient is still under follow-up. There was overall improvement and no evidence of recurrence.(Fig 10 & 11).

Fig 1

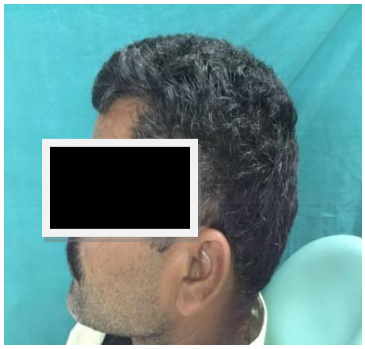


Fig 2

Fig 3

Extraoral examination (no extraoral swelling

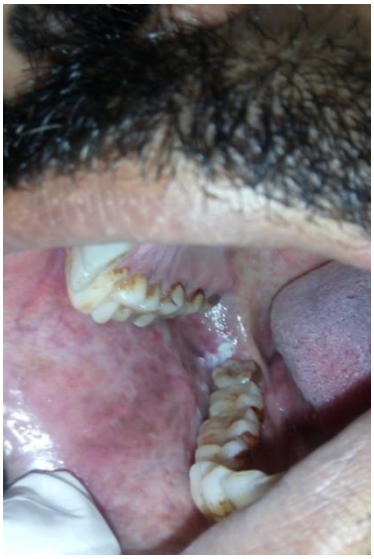


Fig 4WHITE GROWTH ON RIGHT BACK REGION ON RIGHT REGION

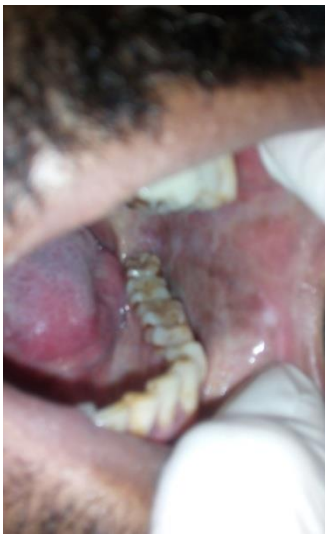


FIG 5 WHITE FIBROUS& WHITE BANDS BANDS ON LEFT AREA

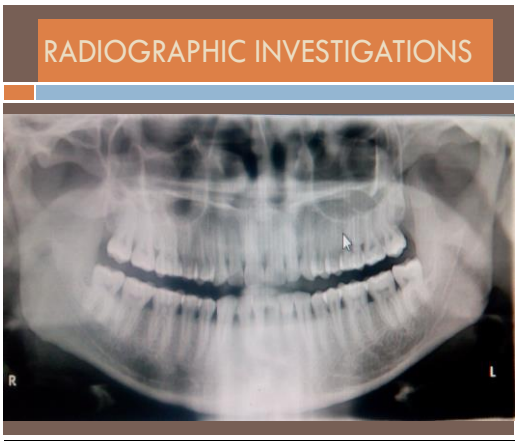
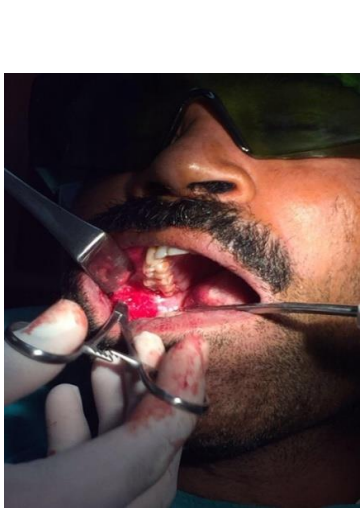


FIG 6: OPG (ORTHOPANTOMOGRAM)



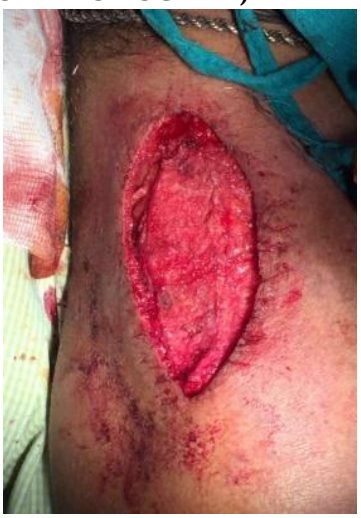


FIG 7FIG 8

Bilateral fibrotomy followed by deep and wide excision of the lesion with free skin grafting

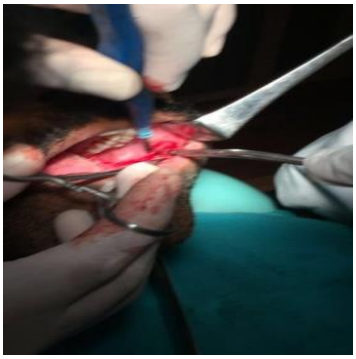


Fig 9 Laser Fibrotomy

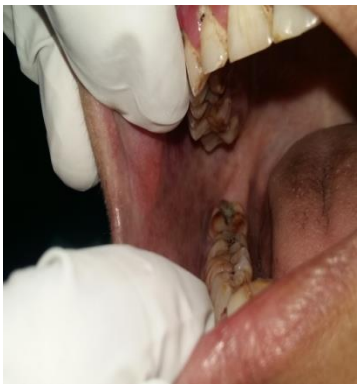


Fig 10 FOLLOW UP AFTER 2 MONTHS

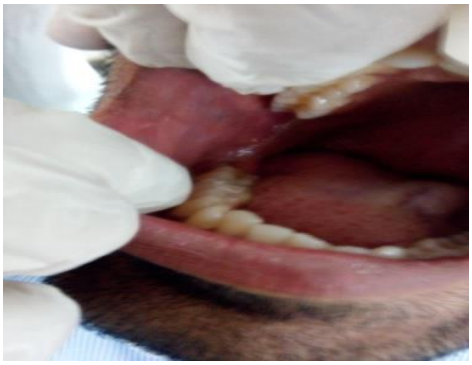


Fig 11 FOLLOW UP AFTER 5 MONTHS

DISCUSSION

"Verrucous" term used for lesions that shows a exophytic keratotic surface which is composed of blunt epithelial or sharp projections having keratin-filled invaginations(plugging), no fibrovascular cores. VC,a warty variant of squamous cell carcinoma is characterized by a predominantly exophytic overgrowth of well-differentiated keratinizing epithelium.[11, 13]It is mostly present in buccal mucosa, mandibular alveolar crest, gingiva, tongue with glottic larynx being the most frequent non-oral site. [2]The tumor rarely crosses 10 cm in its greatest dimension. Literature depicts that VC mostly occurs in males in 5-6th decade of life. Etiology of this is tobacco in the smokeless and inhaled forms has been predominantly reported in the affected patients, followed by betel nut chewing and use of alcohol. In all the cases the oral hygiene is invariably poor. The other etiology is human papillomavirus (HPV) in VC under a matter of debate. [1, 3, 5]Verrucous lesions of oral cavity are diagnostically challenging as they include a spectrum of benign, potentially malignant, and frankly malignant lesions. CLINICALLY and histologically oral verrucous hyperplasia, a potentially malignant disorder, resembles oral verrucous carcinoma and may be indistinguishable from one another. The most reliable way to separate these entities on routine haematoxylin-eosin stained tissue sections is to recognize the exophytic growth patterns of oral verrucous hyperplasia from the combined exophytic and endophytic growth patterns associated with verrucous carcinoma. [8]

Verrucous hyperplasia, verrucous keratosis, and verrucous carcinoma may not be distinguished clinically or may coexist, resulting in diagnostic difficulties. It should be kept in mind that verrucous hyperplasia may also develop from leukoplakic lesions, and it may transform into verrucous carcinoma or squamous-cell carcinoma, acting as a potential precancerous lesion. [9]Accompanied by leukoplakic lesions. It is often difficult to distinguish between verrucous hyperplasia and verrucous carcinoma. Verrucous hyperplasia is a forerunner of verrucous carcinoma, and transitionis so consistent that the hyperplasia, once diagnosed, should be treated as verrucous carcinoma. Verrucous hyperplasia warrants close clinical follow-up to intercept and prevent such a possibility. [9, 6]Differential diagnosis can be

made histologically, but a biopsy specimen should be sufficient for correct diagnosis. Verrucous hyperplasia generally does not extend into deeper tissues but is superficial to normal epithelium, whereas verrucous carcinoma extends more deeply. [6, 9, 2, 4]Other the differential diagnosis are papilloma, proliferative verrucous leukoplakia, verrucous leukoplakia, papillary scc. [6] VC is a locally invading tumor and does not spread to the local lymph nodes. If lymph nodes are palpable, they usually present as an inflammatory reaction in large secondarily infected lesions.[1]When confronted with bony structures such as the mandible, the tumor tends to destroy the bony tissue on a broad front, and erodes with a sharp margin rather than infiltrating into the marrow spaces.5 While surgery forms the widely accepted mode of treatment for VC, radiation is only employed in advanced cases due to reports of radiation induced anaplastic formation [1,12]

Surgery is considered the most accepted treatment for oral VC [4]. Oral VC has an excellent prognosis with surgical management. Surgical excision and primary grafting with regular long term follow up for recurrence can be considered as a feasible option for treatment of oral VC.[11] The treatment of OSMF has been concentrated on attempts to improve opening of the mouth by medical or surgical means. Surgical excision and skin grafting are applicable where the areas of fibrosis are localized and access is unrestricted [10]. Thus, surgery has not always been attempted in severe and diffuse cases of OSMF. Attempts to improve the opening of the mouth by merely surgically dividing the fibrous bands may make matters worse by increasing scarring. Split thickness skin grafting following bilateral temporalis myotomy or coronoidectomy has been advocated [11].Verrucous carcinoma may arise from preexisting potentially malignant lesions. [10, 11]Oral submucous fibrosis (OSF), a premalignant condition of oral cavity, has been reported to associate with the development of OSCC and rare cases of OVC. However, very few cases of VC associated with OSF that transforms into OSCC have been reported. [9]

CONCLUSION

Clinical diagnosis of VC may mislead with benign lesions like squamous papilloma or verrucous leukoplakia, henceforth an incisional biopsy and close cooperation with pathologist and surgeon is mandatory

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