



VERRUCOUS CARCINOMA OF LEG -UNUSUAL SITE: A CASE REPORT

PreethamRaj G and Dhirav R

Department of General Surgery, ESIC Medical College & PGIMSR, Bangalore, Karnataka, India

ARTICLE INFO

Article History:

Received 24th November, 2017

Received in revised form 21st
December, 2017

Accepted 13th January, 2018

Published online 28th February, 2018

Key words:

Leg malignancy lesions, Squamous
cell carcinoma, Ulcero-proliferative
growth, Verrucous carcinoma

ABSTRACT

Ulcero-proliferative growth over extremities is common in day to day surgical life. The presenting complaints and time of presentation may vary through an ulcer, ulcero-proliferative growth, and fungating growths. Most commonly diagnosed in such ulcero-proliferative growth is squamous cell carcinoma diagnosed by edge-wedge biopsy and histopathological examination. Among the variants of squamous cell carcinoma, verrucous carcinoma is a rare variant. Verrucous carcinoma is a variant of well-differentiated squamous cell carcinoma. Verrucous carcinoma grows gradually, has a tendency of local invasion and seldom metastasizes. Verrucous carcinoma may occur in various head and neck locations, as well as in the genitalia. The oral cavity is the most common site of this tumor. Here we are presenting such a case of verrucous carcinoma over the leg (unusual site). Surgical resection with sufficient safety margin is recommended.

Copyright © 2018 Preetham Raj G and Dhirav R. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Verrucous carcinoma is a low-grade, well differentiated uncommon variant of squamous cell carcinoma.¹ It is also referred as Ackerman's tumor since it is first described by Ackerman in 1948.^{2,3} It is also called as snuff dipper's carcinoma since this variant is often seen in snuff users and those who chew tobacco.⁴ The age of presentation ranges from 50 to 80 years with a male predominance and the median age is 67 years.⁵ Males are more commonly affected. Oral mucosa is the most common site of involvement. It may occur in head, neck region and in the genitalia.⁶ The majority of cutaneous carcinomas are formed on feet.⁷ Verrucous carcinoma may grow very large and can destroy adjacent tissue such as bone and cartilage. Surgery is considered as the treatment of choice. The extent of surgical margin and the adjuvant radiotherapy are still controversial. Verrucous carcinoma over the leg is unusual.

Case report

A 62-year-old male patient presented with chief complaints of growth over medial malleolus of right leg since 1 year gradually attained the present size and complaints pain of since 3 months. Past history revealed that he is a smoker for past 40 years and alcoholic for past 35 years. On clinical examination patient afebrile, pulse rate: 78/min, blood pressure: 130/80 mm of Hg and respiratory rate: 16/min. A solitary tender cauliflower like ulcero-proliferative growth of size longer diameter 8cm x 6cm x 4cm over medial malleolus of right lower limb. It did not bleed on touch and was mobile over

underlying structures with no palpable regional lymph nodes. Laboratory findings indicated Hb:10g/dl, total blood count:9500cell/cumm, coagulation profile within normal limits, serum creatinine: 0.7mg/dl. X-ray of right leg and ankle joint was normal. MRI was also done which revealed no infiltration into deeper structures.

A conservative surgical wide local excision with split thickness skin grafting done. Specimen (ESIC Medical College and PGIMSR/Bangalore Biopsy. No.5704/10) is sent for histopathology. The diagnosis of verrucous carcinoma is confirmed (Figure 3).



Figure 1 preoperative image of the verrucous carcinoma over medial aspect of the leg

*Corresponding author: PreethamRaj G

Department of General Surgery, Esic medical college PGIMSR, Bangalore, Karnataka, India,



Figure 2 post operative image after Wide local excision



Figure 3 HPE image

DISCUSSION

Verrucous carcinoma usually occurs over 60 years of age. Males are more prone. Usually, sites of involvement are gingiva, buccalmucosa, alveolar mucosa, hard palate floor of mouth, larynx, esophagus, penis and scrotum. The majority of cutaneous carcinomas (90%) are found on feet.⁷ The incidence of verrucous carcinoma on the leg is unknown. Lesions are painful show multiple ruggae like folds and deep clefts. It is a slow growing warty, well circumscribed exophytic lesion usually covered by leukoplakic patches. Lesion usually starts as verrucous hyperplasia then becomes vegetant resembling verrucous leukoplakia and finally it takes months to years to develop into Verrucous carcinoma.⁸ It is locally malignant, if it is recurrent it is highly malignant than squamous cell carcinoma and that rarely metastasis. Verrucous carcinoma may grow large in size, resulting in destruction of adjacent tissue, such as bone and cartilage.⁹ Reactionary regional lymphadenopathy may present due to inflammation.¹⁰

Based on site of occurrence it is classified into four types

Ano-urogenital: Giant chondylomaaccuminatum, Buschke-Lowenstein tumor.

Oro-aerodigestive: Ackerman tumor, oral florid papillomatosis.

Feet: Carcinoma cuniculatum, epitheliomacuniculatum.

Other cutaneous sites: Cutaneous verrucous carcinoma, papillomatosis cutis carcinoids.

Major risk factors are smoking, snuffing of tobacco and alcohol consumption.¹¹ Betel nut chewing is an additional risk factor in Taiwan. Different gene mutation sites in the head and neck cancers between western countries and Taiwan have been

reported.¹²⁻¹⁵ Verrucous carcinoma may be associated with HPV infections may be with serotypes 16 and 18, but serotypes 6 and 11 have been reported.¹⁶

Grispan have divided Verrucous carcinoma into four types.¹⁷
 Type I_A: Acanthosis, papillomatosis, luekoedema, moderate ortho or parakerstosis, hypertrophic interpapillary crests and stratification of basal layer.

Type I_B: Cryptic depression of epithelial surface, invagination of epithelium and fi stulous tendency.

Type II: Areas with characteristics of Type-I_A or Type-I_B and areas with hyperchromatic nucleus and atypical mitosis.

Type III: Areas with Type-I or Type-II and features of squamous cell carcinoma. Anaplastic cells and metastasis are frequently observed in this type.

Staging of Verrucous (squamous cell) carcinoma

- TX Primary tumor cannot be assessed
- T0 No evidence of primary tumor
- Tis Carcinoma in situ
- T1 Tumor ≤2 cm in greatest dimension
- T2 Tumor >2 cm, but not >5 cm, in greatest dimension
- T3 Tumor >5 cm in greatest dimension
- T4 Tumor invades deep extradermal structures (i.e., cartilage, skeletal muscle, or bone)

Regional lymph nodes

- (N) NX Regional lymph nodes cannot be assessed
- N0 No regional lymph node metastasis
- N1 Regional lymph node metastasis
- Distant metastasis (M)
- MX Distant metastasis cannot be assessed
- M0 No distant metastasis
- M1 Distant metastasis

Stage grouping

- Stage 0 Tis N0 M0
- Stage I T1 N0 M0
- Stage II T2 N0 M0 T3 N0 M0
- Stage III T4 N0 M0
- Any T N1 M0 Stage IV Any T Any N M1

Conservative surgical excision is the treatment of choice for Verrucous carcinoma.¹⁸ Treating of regional lymphadenopathy is not mandatory because the metastatic spread is rare in Verrucous carcinoma.¹⁹ Verrucous carcinoma is considered to be have a poor response to radiotherapy.²⁰ The combination of chemotherapy and surgery can be considered.

CONCLUSIONS

Verrucous carcinoma is a rare variant of squamous cell carcinoma. Commonest location Of Verrucous carcinoma are in the oral cavity, extraoral sites like genitalia and feet, but on the leg is rare. Wide local excision is treatment of choice. Radiotherapy described but proved ineffective.

References

1. Ridge JA, Glisson BS, Lango MN, Feigenberg S. Head and neck tumours. In: Pazdur R, Wagman LD, Camphausen KA, Hoskins WJ, editors. Cancer Management: A Multidisciplinary Approach. 11th ed. London: W.B. Saunders; 2008.

2. Ackerman LV. Verrucous carcinoma of the oral cavity. *Surgery* 1948; 23:670-8.
3. Steffen C. The man behind the eponym: Lauren V. Ackerman and verrucous carcinoma of Ackerman. *Am J Dermatopathol* 2004; 26:334-41.
4. McGuirt WF. Snuff dipper's carcinoma. *Arch Otolaryngol* 1983; 109:757-60.
5. Tornes K, Bang G, StrømmeKoppang H, Pedersen KN. Oral verrucous carcinoma. *Int J Oral Surg* 1985; 14:485-92.
6. Medina JE, Dichtel W, Luna MA. Verrucous-squamous carcinomas of the oral cavity. A clinicopathologic study of 104 cases. *Arch Otolaryngol* 1984; 110:437-40.
7. Delahage JF, Janser JC, Rodier JF, Auge B. Cuniculatum carcinoma. 6 cases and review of the literature. *J Chir (Paris)* 1994; 131:78-8. [Cross ref] carcinoma arising in the tongue. *Head Neck Pathol* 2012; 6:130-4.
8. Murrah VA, Batsakis JG. Proliferative verrucous leukoplakia and verrucous hyperplasia. *Ann Otol Rhinol Laryngol* 1994; 103:660-3.
9. Koch BB, Trask DK, Hoffman HT, Karnell LH, Robinson RA, Zhen W, *et al.* National survey of head and neck verrucous carcinoma: Patterns of presentation, care, and outcome. *Cancer* 2001; 92:110-20.
10. Claydon RJ, Jordan JE. Verrucous carcinoma of Ackerman, a distinctive clinicopathologic entity: Report of two cases. *J Oral Surg* 1978; 36:564-7.
11. McCoy JM, Waldron CA. Verrucous carcinoma of the oral cavity. A review of forty-nine cases. *Oral Surg Oral Med Oral Pathol* 1981;52:623-9
12. Xu J, Gimenez-Conti IB, Cunningham JE, Collet AM, Luna MA, Lanfranchi HE, *et al.* Alterations of p53, cyclin D1, Rb, and H-ras in human oral carcinomas related to tobacco use. *Cancer* 1998; 83:204-12.
13. Saranath D, Chang SE, Bhotie LT, Panchal RG, Kerr IB, Mehta AR, *et al.* High frequency mutation in codons 12 and 61 of H-ras oncogene in chewing tobacco-related human oral carcinoma in India. *Br J Cancer* 1991; 63:573-8.
14. Yeudall WA, Torrance LK, Elsegood KA, Speight P, Scully C, Prime SS. Ras gene point mutation is a rare event in premalignant tissues and malignant cells and tissues from oral mucosal lesions. *Eur J Cancer B Oral Oncol* 1993; 29B:63-7.
15. Kuo MY, Jeng J H, Chiang CP, Hahn LJ. Mutations of Ki-ras oncogene codon 12 in betel quid chewing-related human oral squamous cell carcinoma in Taiwan. *J Oral Pathol Med* 1994;23:70-4.
16. Lübke J, Kormann A, Adams V, Hassam S, Grätz KW, Panizzon RG, *et al.* HPV-11- and HPV-16-associated oral verrucous carcinoma. *Dermatology* 1996;192:217-21.
17. Grinspan D, Abulafi a J. Oral floridpapillomatosis (verrucous carcinoma). *Int J Dermatol* 1979; 18:608-22.
18. Chhoeurn V, de Villa GH, Lo LJ. Osseous regeneration after embolization of mandibular arteriovenous malformation. *Chang Gung Med J* 2003; 26:937-42.
19. Rink B. Verrucous carcinoma of the oral mucosa. *Laryngorhinotologie* 1991; 70:542-5.
20. Jyothirmayi R, Sankaranarayanan R, Varghese C, Jacob R, Nair MK. Radiotherapy in the treatment of verrucous carcinoma of the oral cavity. *Oral Oncol* 1997; 33:124-8.

How to cite this article:

PreethamRaj G and Dhirav R (2018) 'Verrucous Carcinoma of Leg -Unusual Site: A Case Report', *International Journal of Current Medical and Pharmaceutical Research*, 4(2), pp. 2993-2995.
