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Basal Cell Carcinoma of the Vermilion of the Upper Lip: A Case Report

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1. Abstract

Although basal cell carcinoma (BCC) is the most common cutaneous malignancy worldwide, there are only a few reports of lip involvement. Involvement of the vermilion is extremely rare, especially in young, male, skin phototype IV individuals. Only 66 cases of BCC affecting the vermilion lip have been reported, including 40 involving the upper lip. Squamous cell carcinoma, though less common than BCC overall, affects the lower lip more frequently than the upper lip, due to greater exposure to ultraviolet radiation (UVR), particularly in males with fairer skin types. In contrast to SCCs, BCCs more commonly affect the upper lip and occur mostly in females. BCCs rarely metastasize despite their locally destructive nature. We present a unique case of a 45-year-old male with skin type V, who presented with an ulcerated, pigmented nodular BCC on the right vermilion of the upper lip.

2. Introduction

Keratinocyte carcinomas (KCs) include basal cell carcinomas (BCCs, 80%) and cutaneous squamous cell carcinomas (cSCCs, 20%), which are the most common malignancies in fair-skinned populations worldwide and are increasing in incidence [1, 2]. First described by Jacob in 1827, BCC is the most common human malignancy worldwide, with increasing incidence globally [3,4]. BCC comprises 65%-75 % of skin cancer in individuals with fair skin types, compared to 2%-8 % in individuals with darker skin types. BCC is 19 times more common in Caucasians than in Blacks [4]. BCCs are typically found on the hair-bearing skin of the head and neck, and it is unusual to find them on glabrous skin [5]. Case reports of BCCs on glabrous skin are rare. BCCs have been reported on vermilion lips, palms, soles, vulva, and even oral and gingival mucosa [6-11]. BCCs are hypothesized to have originated from pluripotent basal cells of hair follicles or sweat glands, but their presence on the vermilion lip contrasts with this notion, as the vermilion lip is devoid of hair follicles and sweat glands [12, 13]. Most BCCs can be histopathologically assorted into four specific clinicopathologic subsets: nodular, superficial, morphoeic, and fibroepithelial (fibroepithelioma of Pinkus) [14]. The most frequent subtype is nodular BCC, which presents as an ivory papule with rolled margins and branching vessels [15]. In younger patients, superficial BCCs are more common, presenting on the trunk [14]. Morphoeic BCCs are often poorly demarcated, with a sclerotic or indurated appearance [15]. Fibroepithelioma of Pinkus is a distinctive type, presenting as a polished flat plate or stalked papule on the lower back; it is sometimes confused with acrochordon [16].

3. Case Report

A 45-year-old male with phototype V presented with a painless nodule on the upper lip that had persisted for seven years, growing slowly and intermittently ulcerating. On cutaneous examination, a firm, smooth, centrally crusted 1x1.5 cm black nodule with rolled borders was observed over the right vermilion of the upper lip [Figure 1]. No telangiectasias could be detected due to his dark skin color. Based on typical clinical findings and the individual's history, a diagnosis of an ulcerated, nodular BCC was made. The patient was informed about the nature and consequences of the disease, and an appointment for biopsy and electrodesiccation was scheduled. However, the patient never returned for further treatment. This case is unique, as BCC appears on the vermilion of the upper lip in a young man with skin type V, which is extremely rare. The most likely situation is the opposite: an older man with skin type I or II presenting with BCC on the lower lip. Only a few reports of BCC on the vermilion area have been documented.

Figure 1. Centrally crusted, pigmented, annular plaque with a pearly rolled edge over the right vermilion surface of the upper lip (BCC).

4. Discussion

BCCs and cSCCs are often grouped together as keratinocyte carcinomas (KCs), previously known as non-melanoma skin cancer (NMSC), to distinguish them from melanoma.17 BCCs constitute roughly 740% of KCs, while SCCs account for only 23%.17 The primary risk factors are exposure to ultraviolet (UV) light-both UVA and UVB—and mutations in the patched homolog 1 (PTCH1) or the smoothened homolog (SMO).14 Despite BCC being the most common cutaneous malignancy, only a few reports of lip involvement exist.18 Involvement of the vermilion is extremely rare, particularly in young males with skin phototype V.19 Most studies reported BCCs as more common on the head and neck of fair-skinned people and on the upper lip in women, whereas SCCs were more common on the lower lip and in men.20 Our case is unusual as it presents BCC on the upper vermilion lip in a young male with skin phototype V. A PubMed search revealed only 17 related publications, the majority of which were single case reports. Welton (1949) was the first to report two patients with BCC on the vermilion surface of the lower lip among 620 patients with BCC, followed by, Weitzner (1975) who reported three patients with BCC on the labial mucosal surface, two on the upper lip, and one on the lower lip in a retrospective review of 652 cases of BCC, then De Sousa et al. (2001) reviewed 3,477 histologically diagnosed BCC cases over an 11-year period and reported six cases of BCC on the vermilion lip that were clinically diagnosed as SCC. Five of these cases were on the lower lip, while only one was on the upper lip [21-23]. Cohen (2018) reported the case of an 82-year-old female with a nodular BCC on the right side of her upper lip; this also involved the mucous part, and Matsumura in 2019 reported a case of an 89-year-old male with pigmented BCC on the right side of his upper lip, involving the mucous part as well [24, 25]. Two large case series were published: the first by Silapunt et al. [26], who found 18 (0.25%) cases on the vermilion lip out of 7,027 BCCs collected during a five-year period, and the second by Queen et al. [27], who identified 19 cases of BCC, 14 of which involved the vermilion of the upper lip and five of which involved the lower lip [18, 26]. In general, most BCCs have a reduced risk of reappearance or metastasis; and are managed cautiously with destructive methods such as curettage and electrodesiccation (C&E) or surgery [27]. Alternative treatments, such as topical imiquimod or 5-fluorouracil, are restrained for palliating conditions when standard medical care is not practicable due to lower efficacy.28 Metastatic BCC (mBCC) is extremely rare, with lymph nodes being most frequently involved (LN; 53%), followed by respiratory (33%), musculoskeletal (20%), integumentary (11%), and hepatic system (4%).29 Systemic treatments like hedgehog signaling inhibitors and targeted checkpoint drugs, are reserved for locally advanced and metastatic BCC [30].

References

1. Karimkhani C, Boyers LN, Dellavalle RP, Weinstock MA. It's time for "keratinocyte carcinoma" to replace the term "nonmelanoma skin cancer". J Am Acad Dermatol. 2015; 72(1): 186-7.
2. Nagarajan P, Asgari MM, Green AC. Keratinocyte Carcinomas: Current Concepts and Future Research Priorities. Clin Cancer Res. 2019; 25(8): 2379-2391.
3. Breathnach CS, Moynihan JB. James Macartney and his Successor Arthur Jacob, Pioneers in Development of Medical Education, Hospitals, Anatomy and Surgery. Ulster Med J. 2016; 85(2): 103-6.
4. Cameron MC, Lee E, Hibler BP. Basal cell carcinoma: Epidemiolo-

gy; pathophysiology; clinical and histological subtypes; and disease associations. J Am Acad Dermatol. 2019; 80(2): 303-317.

5. Ramadan S, Sharma N, Hassan Z. Palmar psoriasis or missed BCC?-A case report. JPRAS Open. 2021; 28: 29-32.
6. Batalla A, Encinas-Muñiz AI, Gutiérrez-González E, de la Mano D. Photoletter to the editor: Basal cell carcinoma on the vermilion lip. J Dermatol Case Rep. 2015; 9(1): 25-6.
7. Alonso-Corral MJ, Gomez-Avivar MP, Berenguel-Ibanez MM. Palmar basal cell carcinoma: an unusual site? Actas Dermosifiliogr. 2014; 105(6): 623-4.
8. Hone NL, Grandhi R, Ingraffea AA. Basal Cell Carcinoma on the Sole: An Easily Missed Cancer. Case Rep Dermatol. 2016; 8(3): 283-286.
9. Renati S, Henderson C, Aluko A, Burgin S. Basal cell carcinoma of the vulva: a case report and systematic review of the literature. Int J Dermatol. 2019; 58(8): 892-902.
10. Lawson BF, Griffin JW, Waldron CA. Basal-cell carcinoma of the gingiva. Report of a case. Oral Surg Oral Med Oral Pathol. 1967; 24(5): 648-53.
11. Edmondson HD, Browne RM, Potts AJ. Intra-oral basal cell carcinoma. Br J Oral Surg. 1982; 20(4): 239-47.
12. Dika E, Fanti PA, Ismaili A, Misciali C, Vaccari S, Patrizi A. Does BCC of the vermilion lip originate from the ectopic sebaceous glands? An observation in Mohs surgery. Eur J Dermatol. 2012; 22(5): 706-7.
13. Yaghoobi R, Ranjbari N, Pazyar N, Foroozan M, Feily A. Basal Cell Carcinoma of Vermilion Mucosa of Upper Lip: a Rare Case Report. Acta Med Indones. 2017; 49(3): 255-258.
14. Marzuka AG, Book SE. Basal cell carcinoma: pathogenesis, epidemiology, clinical features, diagnosis, histopathology, and management. Yale J Biol Med. 2015; 88(2): 167-79.
15. Jackson R. The many faces of basal cell carcinoma. Can Med Assoc J. 1982; 126(10): 1157-9.
16. Niculet E, Craescu M, Rebegea L. Basal cell carcinoma: Comprehensive clinical and histopathological aspects, novel imaging tools and therapeutic approaches (Review). Exp Ther Med. 2022; 23(1): 60.
17. Ragaini BS, Blizzard L, Newman L, Stokes B, Albion T, Venn A. Temporal trends in the incidence rates of keratinocyte carcinomas from 1978 to 2018 in Tasmania, Australia: a population-based study. Discov Oncol. 2021; 12(1): 30.
18. Queen D, Knackstedt T, Polacco MA, Collins LK, Lee K, Samie FH. Characteristics of non-melanoma skin cancers of the cutaneous perioral and vermilion lip treated by Mohs micrographic surgery. J Eur Acad Dermatol Venereol. 2019; 33(2): 305-311.
19. Luna-Ortiz K, Güemes-Meza A, Villavicencio-Valencia V, Mosqueda-Taylor A. Upper lip malignant neoplasms. A study of 59 cases. Med Oral Patol Oral Cir Bucal. 2012; 17(3): e371-6.
20. Davis DS, Robinson C, Callender VD. Skin cancer in women of color: Epidemiology, pathogenesis and clinical manifestations. Int J Womens Dermatol. 2021; 7(2): 127-134.
21. Welton DG, Elliott JA, Kimmelstiel P. Epithelioma; clinical and histologic data on 1,025 lesions. Arch Derm Syphilol. 1949; 60(2): 277-93.
22. Weitzner. Basal-cell carcinoma of the vermilion mucosa and skin of the lip. Oral Surg Oral Med Oral Pathol. 1975; 39(4): 634-7.
23. De Sousa J, Sánchez Yus E, Rueda M, Rojo S. Basal cell carcinoma on the vermilion border of the lip: a study of six cases. Dermatology. 2001; 203(2): 131-4.v
24. Cohen BJ, Cohen ES, Cohen PR. Basal Cell Carcinoma: A Patient and Physician's Experience. Dermatol Ther (Heidelb). 2018; 8(3): 329-337.
25. Matsumura N FA, Ueda K, Oyama A. Pigmented Basal-cell carcinoma of the upper lip: A report of a case and review of the literature. Dermatol Sin. 2019; 37: 53-5.
26. Silapunt S, Peterson SR, Goldberg LH, Friedman PM, Alam M. Basal cell carcinoma on the vermilion lip: a study of 18 cases. J Am Acad Dermatol. 2004; 50(3): 384-7.
27. Chen OM, Kim K, Steele C. Advances in Management and Therapeutics of Cutaneous Basal Cell Carcinoma. Cancers (Basel). 2022; 14.
28. Heath MS, Bar A. Basal Cell Carcinoma. Dermatol Clin. 2023; 41(1): 13-21.
29. Baheti AD, Tirumani SH, Giardino A. Basal cell carcinoma: a comprehensive review for the radiologist. AJR Am J Roentgenol. 2015; 204(2): W132-40.
30. De Giorgi V, Scarfì F, Trane L. Treatment of Advanced Basal Cell Carcinoma with Hedgehog Pathway Inhibitors: A Multidisciplinary Expert Meeting. Cancers (Basel). 2021; 13 (22).