

Case Report

An exophytic and symptomatic lesion of the labial mucosa diagnosed as labial seborrheic keratosis

Hui Feng^{1,2}, Binjie Liu¹, Zhigang Yao¹, Xin Zeng², Qianming Chen²

¹XiangYa Stomatological Hospital, Central South University, Changsha 410000, Hunan, P. R. China; ²State Key Laboratory of Oral Diseases, West China Hospital of Stomatology, Sichuan University, Chengdu 610041, Sichuan, P. R. China

Received March 16, 2019; Accepted April 23, 2019; Epub July 1, 2019; Published July 15, 2019

Abstract: Seborrheic keratosis is a common benign epidermal tumor that occurs mainly in the skin of the face and neck, trunk. The tumors are not, however, seen on the oral mucous membrane. Herein, we describe a case of labial seborrheic keratosis confirmed by histopathology. A healthy 63-year-old man was referred to our hospital for evaluation and treatment of a 2-month history of a labial mass with mild pain. Clinically, the initial impressions were malignant transformation of chronic discoid lupus erythematosus, syphilitic chancre, or keratoacanthoma. Surprisingly, our laboratory results and histopathologic evaluations established a novel diagnosis of a hyperkeratotic type of labial seborrheic keratosis (SK). This reminds us that atypical or varying features of seborrheic keratosis make it difficult to provide an accurate diagnosis. Clinical manifestations of some benign lesions may be misdiagnosed as malignancy. Consequently, dentists should consider this as a differential diagnosis in labial or other oral lesions.

Keywords: Seborrheic keratosis, exophytic lesion, symptomatic lesion, labial mucosa, oral mucous membrane

Introduction

Seborrheic keratosis is a common benign epidermal tumor that occurs mainly on the skin of the face, neck, and trunk [1, 2]. However, the occurrence of seborrheic keratosis on an oral mucous membrane is extremely unusual [1, 3, 4]. These tumors are circumscribed and exophytic lesions that are tender and “stuck-on the skin” with a verrucous, rough appearance. Most are asymptomatic, but some lesions may exhibit signs of malignant transformation such as rapid growth, itching, erosion, bleeding, or pain [5]. Herein, we describe a case of a fast-growing and symptomatic lesion on the labial mucosa, suggesting malignancy, confirmed as labial seborrheic keratosis.

Case report

A man in his 60s presented with a 2-month history of a labial mass with slight itching, focal erosion, and mild pain. Self-medication with Latin cephalosporin capsules provided no improvement in his labial lesion. No significant

findings were revealed in his medical history, and he had no known allergies to foods or medications. The patient reported about a forty-year history of smoking, but no other addictions. Physical examination revealed an exophytic, well-defined lesion in the middle portion of the lower lip. There were radial short stretch marks around the swelling and tanned blood crusts and a little keratin-like material overlying the lesion. The basement of the mass appeared to be relatively deep and extensive, but the texture was slightly ductile (**Figure 1**). The remainder of the oral examination result was normal and no skin lesions were detected. Laboratory testing disclosed that the routine blood count (RBC), blood coagulation, liver and kidney functions, C-reactive protein (CPR), erythrocyte sedimentation rate (ESR), and glucagon levels were normal, as were the findings from chest radiographs. Moreover, hepatitis B virus (HBV), human papilloma virus (HPV), human immunodeficiency virus (HIV), and syphilis were determined as negative. Based on medical history and clinical examination, the initial

Symptomatic lesion of labial mucosa diagnosed as labial seborrheic keratosis



Figure 1. Physical examination revealed a well-circumscribed exophytic lesion in the middle portion of lower lip. It had overlying tanned blood crusts or little keratin-like material, and surrounding radial short stretch marks.

clinical impressions of the malignant transformation of chronic discoid lupus erythematosus, syphilitic chancre, or keratoacanthoma were given. Subsequently, an incisional biopsy of the labial lesion was performed.

Surprisingly, the histopathologic examination revealed pronounced papillomatosis with a “church-spire” appearance, prominent hyperorthokeratosis and squamous hyperplasia (**Figure 2A**). The pathologic diagnosis was reported as labial seborrheic keratosis (Hyperkeratotic type). Furthermore, special stain tests failed to reveal any acid-fast bacilli, and the periodic acid-Schiff stain (PAS) was negative (**Figure 2B, 2C**), suggesting that there were tuberculosis and fungal infections in the lesions.

After the pathologic diagnosis was provided, we re-evaluated the patient’s condition. The sharply demarcated and tender mass suggested that this was more likely to a benign tumor, but the possibility of an underlying malignant lesion would not be excluded because of its history of sudden enlargement and some signs of pruritus, erosion, crusting, and pain. Therefore, our patient was admitted to the hospital and underwent a complete excision of the tumor, which on pathologic examination was consistent with the previous histopathologic diagnosis of seborrheic keratosis (**Figure 3A**). Meanwhile, the significant expression of CK10 and Ki67 proteins further proved the above diagnosis in our case (**Figure 3B, 3C**). He was discharged on hospital day 7. In addition to

postoperative scarring, the patient mentioned that no tumor recurrence or other discomfort was found at two and a half years follow-up after labial mass excision (**Figure 4**).

Discussion

Seborrheic keratosis is a common benign epidermal tumor of the skin in middle-aged and elderly individuals without any sex predilection. The common sites include the skin of the face and neck, trunk, and particularly the interscapular areas [1, 2]. However, the occurrence of seborrheic keratosis on oral mucous membrane is extremely unusual [1, 3, 4]. These tumors are circumscribed and exophytic lesions that are tender and “stuck-on the skin” with a verrucous, rough appearance. Most are asymptomatic, but some lesions might exhibit signs of malignant transformation such as rapid growth, itching, erosion, bleeding, or pain [5]. Seven major histopathologic variants have been described: acanthotic, hyperkeratotic, clonal, adenoid, irritated, Bowenoid, and melanocanthoma. Often, the hyperkeratotic type shows a verrucous appearance with “church spire” pattern. There is prominent hyperorthokeratosis, while hyperpigmentation and horn cysts are inconspicuous or absent [1]. Some studies showed that seborrheic keratosis is a hyperproliferative disease with an epidermal CK composition and cytokeratin 10 (CK10) is one of prominent markers of suprabasaloid differentiation stages in this disease [6-8]. Additionally, Ki67, a cellular marker for proliferation, may be positive in seborrheic keratosis [6]. These clinical and pathologic characteristics play an important role in the differential diagnosis, including actinic keratosis, squamous or basal cell carcinoma, melanoma, and verruca vulgaris [9-11].

Long-term observation of seborrheic keratosis without symptom is feasible, while the lesions are mostly removed specially for cosmetic reasons. The common operative therapies of seborrheic keratosis include surgical resection, cryosurgery, electrodesiccation, curettage and ablative laser [5, 12]. Local or systemic drugs such as vitamin D, tazarotene, calcipotriene, dobesilate, ammonium lactate, and imiquimod are the alternative treatment methods for seborrheic keratosis [5, 12-14]. These proposed approaches have shown certain curative effects

Symptomatic lesion of labial mucosa diagnosed as labial seborrheic keratosis

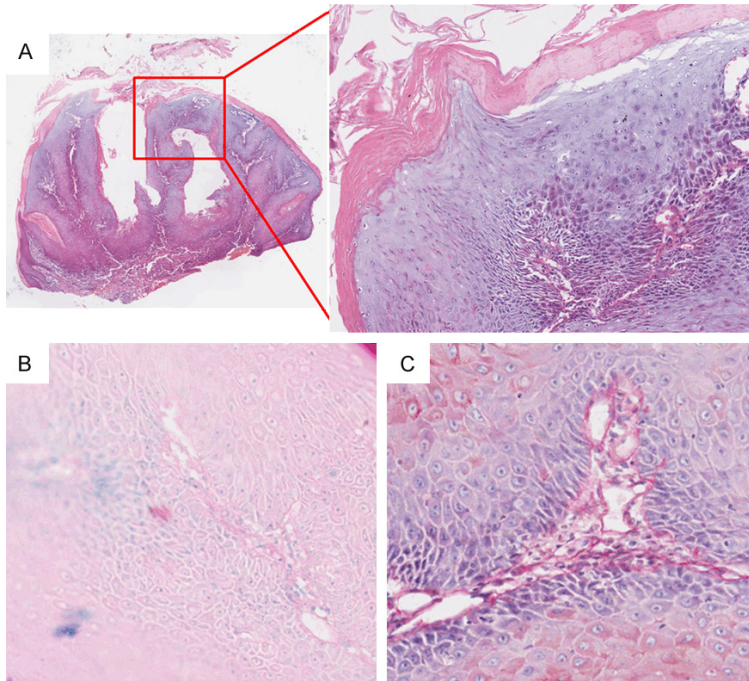


Figure 2. (A) The biopsy revealed prominent papillomatosis with a “church-spire” appearance, hyperorthokeratosis, and squamous hyperplasia. (B) Acid-Fast stain (AFS) and (C) Periodic acid-Schiff stain (PAS) tests were negative. (Hematoxylin and eosin, 10 × and 100 ×).

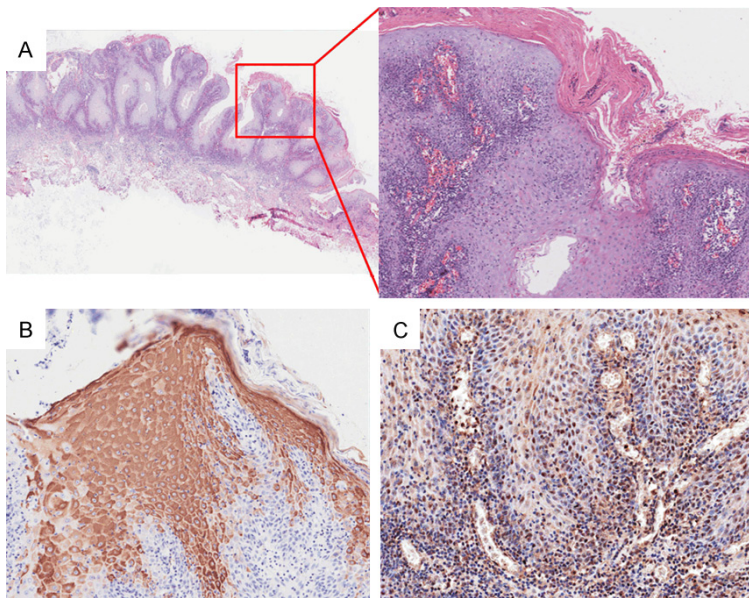


Figure 3. (A) During labial mass excision, histopathologic examination showed uniform basaloid cells with an overlying oral mucous epithelium and prominent acanthosis, and papillomatosis. There were cutin invaginations and horn cysts. (B) The expression of CK10 and (C) Ki67 proteins were detected by immunohistochemistry assays. (Hematoxylin and eosin, 10 × and 100 ×).

on seborrheic keratosis, though none are universally effective and some problems or complications such as scarring, hyperpigmentation, and even recurrence may exist [5, 12]. Moreover, an association between seborrheic keratosis and malignant lesions such as squamous cell carcinoma, and malignant melanoma has been proposed [11]. Therefore, regular follow-up is advised.

The diversity of labial lesions is one of the diagnostic challenges for clinicians. The lesions might indicate a common disease in a highly unusual location. In some instances, apparently indolent lesions demonstrate a diagnosis with a discouraging prognosis. Conversely, certain fast-growing tumors, suggesting malignancy, are in fact benign lesions with favorable outcomes. Our report indicated that seborrheic keratosis could occur on oral mucous membranes, although this is an unusual location. This reminds us that atypical or variant features of seborrheic keratosis make accurate diagnosis difficult. Clinical manifestations of some benign lesions may be misdiagnosed as malignancy. Consequently, dentists should consider this as a differential diagnosis in labial or other oral lesions.

Acknowledgements

We thank the National Natural Science Foundations of China (document No. 81700988, 81-771081).

Disclosure of conflict of interest

None.

Symptomatic lesion of labial mucosa diagnosed as labial seborrheic keratosis



Figure 4. After labial mass excision, postoperative scarring was found at two and a half year follow-up. After labial mass excision, the patient mentioned that no tumor recurrence or other discomfort was found.

Address correspondence to: Dr. Xin Zeng, State Key Laboratory of Oral Diseases, West China Hospital of Stomatology, Sichuan University, 14 Renminnanlu, Section 3, Chengdu 610041, Sichuan, P. R. China. E-mail: zengxin22@163.com

References

- [1] Rashmi GS Phulari, Khushbu B, Rajendrasinh R, Patel S. Seborrheic keratosis. *J Oral Maxillofac Pathol* 2014; 18: 327-330.
- [2] Ji HK, Hyoung WB, Kwang KL, Kim EK. Seborrheic keratosis of the conjunctiva: a case report. *Korean J Ophthalmol* 2009; 23: 306-308.
- [3] Klaus JB. *Dermatopathology*. Elsevier-Health Sciences Division 2015; 20: 578-583.
- [4] Rajabi P, Adibi N, Nematollah P, Heidarpour M, Eftekhari M, Siadat AH. Bowenoid transformation in seborrheic keratosis: a retrospective analysis of 429 patients. *J Res Med Sci* 2012; 17: 217-221.
- [5] Hafner C, Vogt T. Seborrheic keratosis. *J Dtsch Dermatol Ges* 2008; 6: 664-677.
- [6] Almut BA, Meriem J and Olesya VL. Cytokeratin 10-negative nested pattern enables sure distinction of clonal seborrheic keratosis from pagetoid Bowen's disease. *J Cutan Pathol* 2012; 39: 225-233.
- [7] Nobuko Y, Yasutomo I, Ayako K, Airo T, Kiyofumi Y and Ichiro K. Epithelial keratin and p16, and expression in seborrheic keratosis: evaluation based on histopathological classification. *Int J Dermatol* 2014; 53: 707-713.
- [8] Broekaert D, Leigh IM, Lane EB, Van Muijen GN, Ramaekers FC, De Bersaques J, Coucke P. An immunohistochemical and histochemical study of cytokeratin, involucrin and transglutaminase in seborrheic keratosis. *Arch Dermatol Res* 1993; 285: 482-490.
- [9] Sloan JB, Jaworsky C. Clinical misdiagnosis of squamous cell carcinoma in situ as seborrheic keratosis: a prospective study. *J Dermatol Surg Oncol* 1993; 19: 413-416.
- [10] Busam KJ. *Dermatopathology: a volume in the series foundation in diagnostic pathology*. Philadelphia: Elsevier 2010; 336-343.
- [11] Roh NK, Hahn HJ, Lee YW, Choe YB, Ahn KJ. Clinical and histopathological investigation of seborrheic keratosis. *Ann Dermatol* 2016; 28: 152-157.
- [12] Cuevas P, Angulo J, Salgüero I, Giménez-Gallego G. Clearance of seborrhoeic keratoses with topical dobesilate. *BMJ Case Rep* 2012; 2012.
- [13] Herron MD, Bowen AR, Krueger GG. Seborrhoeic keratoses: a study comparing the standard cryosurgery with topical calcipotriene, topical tazarotene, and topical imiquimod. *Int J Dermatol* 2004; 43: 300-302.
- [14] Klaus MV, Wehr RF, Rogers RS 3rd, Russell TJ, Krochmal L. Evaluation of ammonium lactate in the treatment of seborrhoeic keratoses. *J Am Acad Dermatol* 1990; 22: 199-203.