

Dermscopy of a Squamous Cell Carcinoma of the Lower Lip Showing Multiple Rosettes

Rosario Peralta,¹ Gabriel Salerni,² Emilia Cohen Sabban,^{1,3} María Belén Marin,¹ Horacio Cabo^{1,3}

1 Dermatology Department, Instituto de Investigaciones Médicas A. Lanari, University of Buenos Aires, Argentina

2 Hospital Provincial del Centenario de Rosario, Argentina, Universidad Nacional de Rosario, Argentina & Diagnóstico Médico Oroño, Rosario, Argentina

3 School of Medicine, University of Buenos Aires, Argentina

Key words: dermscopy, lip, squamous cell carcinoma, rosettes

Citation: Peralta R, Salerni G, Cohen Sabban E, Marin MB, Cabo H. Dermscopy of a squamous cell carcinoma of the lower lip showing multiple rosettes. *Dermatol Pract Concept*. 2020;10(1):e2020022. DOI: <https://doi.org/10.5826/dpc.1001a22>

Accepted: September 19, 2019; **Published:** December 31, 2019

Copyright: ©2019 Peralta et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Funding: None.

Competing interests: The authors have no conflicts of interest to disclose.

Authorship: All authors have contributed significantly to this publication.

Corresponding author: Rosario Peralta, MD, 3150 Combatientes de Malvinas, CP 1427, Ciudad Autónoma de Buenos Aires, Argentina. Email: rosarioperalta@yahoo.com

Introduction

The term *white shiny structures* groups 3 well-defined morphologies including white shiny lines, white shiny areas, and rosettes. They all can be observed exclusively with polarized light dermscopy. Rosettes are defined as 4 bright white circles arranged as a square resembling a 4-leaf clover, mainly localized in the follicular openings. Despite being well-described dermscopically, their exact histology correlation is uncertain. The presence of white rosettes is suggestive of a diagnosis of actinic keratosis or squamous cell carcinoma (SCC), but they also can be seen in a range of skin conditions and in nonlesional photo-damaged skin [1]. SCC of the lip represents 20% of all oral carcinomas; its dermscopic criteria were recently described, with the main dermscopic features being the presence of ulceration, scales, polymorphous vessels, and white structures such as white structureless areas, white shiny lines, white circles, and perivascular white halos [2]. Herein we report a case showing multiple rosettes on an SCC of the lower lip.

Case Presentation

A 65-year-old woman presented with an 8-month history of an enlarging asymptomatic lesion on her lower lip. Physical examination showed a well-defined, indurated, reddish ulcerated plaque measuring 1.5 cm in diameter with multiple small, whitish dots and a brownish crust (Figure 1). Dermscopy revealed a yellow-brown serohematic crust, ulceration, blood spots, polymorphous vessels, bright white circles, white structureless areas, and multiple rosettes of different sizes and a red background (Figure 2, A and B). The histopathological examination revealed proliferation of atypical epithelial cells with eosinophilic cytoplasm, hyperchromatic and pleomorphic nuclei as well as focal formation of horny pearls (Figure 3A). Ulceration and superficial corneal material were also observed (Figure 3B). No vascular or perineural invasion was noted. Histopathology was consistent with well-differentiated SCC.

Conclusions

SCC of the lip shares several dermoscopic features with cutaneous SCC. In this report we describe the presence of rosettes on SCC of the lip as a novel dermoscopic finding. In agreement with other reports, we noticed that the size of rosettes may vary and they may look more like targeted follicles or white circles, meaning that both signs could be a progression of the same feature [1]. Although a definitive histopathological correlate has not yet been elucidated, it has been proposed that they are caused by the interaction of keratin-filled adnexal openings with the polarized light of the dermatoscope, or that they may correspond to changes induced by orthokeratosis and parakeratosis [1]. Because of the absence of follicu-

lar openings in mucous membrane, we consider that rosettes on the lip could be seen as due to an optical effect produced by the interaction of polarized light with the superficial corneal material; however, further studies are needed to confirm our preliminary observations. In addition, it has been reported that the presence of white and white-yellow color based in distinct dermoscopic structures is related to well or moderately differentiated variants of SCC [2]; the present case shows an adequate histopathological grade differentiation correlation.

References

1. Lozano-Masdemont B, Polimón-Olabarrieta I, Marinero-Escobedo S, Gutiérrez-Pecharromán A, Rodríguez-Lomba E. Rosettes in actinic keratosis and squamous

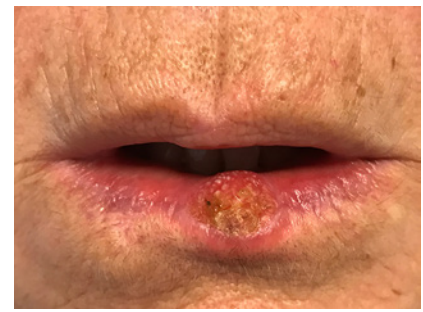


Figure 1. Clinical presentation of a well-defined, firm, reddish ulcerated plaque, diameter 1.5 cm, in the center of the lower lip, with multiple small, whitish dots and a brownish crust on its lower portion.

cell carcinoma: distribution, association to other dermoscopic signs and description of the rosette pattern. *J Eur Acad Dermatol Venereol.* 2018;32(1):48-52.

2. Benati E, Persechino S, Piana S, et al. Dermoscopic features of squamous cell carcinoma on the lips. *Br J Dermatol.* 2017;177(3):e41-e43.

Figure 2. Polarized dermoscopy shows a yellow-brown serohematic crust, ulceration (black arrow), blood spots (asterisk), polymorphous vessels, multiple rosettes, and bright white circles on a red background (A). Multiple rosettes of different sizes (B).

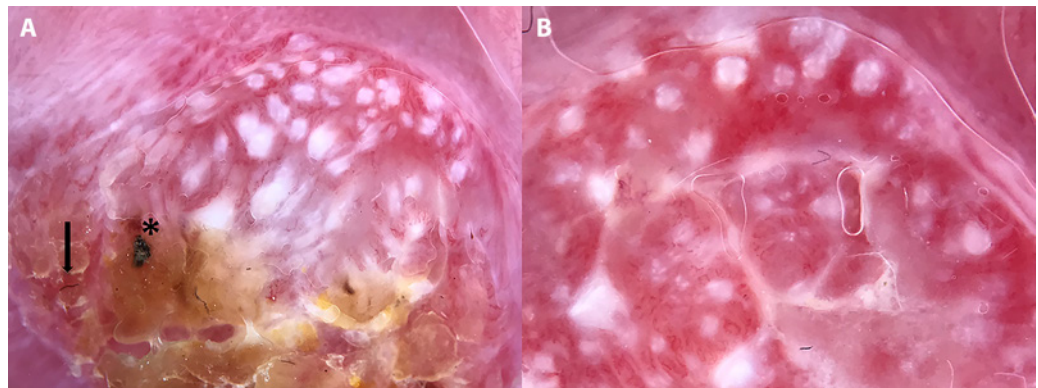


Figure 3. Histopathological analysis shows (A) proliferation of atypical epithelial cells with eosinophilic cytoplasm and focal formation of horny pearls (H&E, $\times 10$). (B) Ulceration and superficial corneal material is also observed (H&E, $\times 10$).

