

Confocal microscopy in the diagnosis of pink facial lesions

Microscopia confocal no diagnóstico das lesões róseas da face

ABSTRACT

Solitary pink lesions of the face may have nonspecific dermoscopic patterns, and are thus deemed difficult to diagnose. Differential diagnoses to consider are: actinic keratosis, squamous cell carcinoma, basal cell carcinoma, and amelanotic melanoma. Confocal microscopy can be used as an auxiliary clinical examination in their diagnosis and in determining the most significant sites for carrying out a biopsy. The authors describe a case that illustrates the usefulness of a confocal microscopy examination in pink lesions.

Keywords: dermoscopy; microscopy, confocal; carcinoma, basal cell; keratosis, actinic.

RESUMO

As lesões róseas solitárias da face podem apresentar padrão dermatoscópico inespecífico, sendo assim consideradas de difícil diagnóstico. Os diagnósticos diferenciais a considerar são: ceratose actínica, carcinoma espinocelular, carcinoma basocelular e melanoma amelanótico. A microscopia confocal pode ser utilizada como exame clínico auxiliar na realização do diagnóstico e na determinação dos locais mais significativos para se fazer uma biópsia. Apresentamos um caso para exemplificar a utilidade do exame de microscopia confocal nas pink lesions.

Palavras-chave: dermoscopia; microscopia confocal, carcinoma basocelular; ceratose actínica.

CASE REPORT

A 61-year-old white female patient reporting intense exposure to the sun in childhood and adolescence presented with a complaint of a wound in the nasal tip for four months. She described having undergone cauterization two years before, developing with reddened area in the site.

At the dermatological examination the patient presented an erythematous papule of approximately 4mm and with a central meliceric crust (Figure 1).

At the dermoscopic examination a pinkish area with fine telangiectasias and central exulceration was noticed (Figure 2). Diagnoses of actinic keratosis or basal cell carcinoma (BCC) were hypothesized. In the face of diagnostic uncertainty and due to the fact that the lesion was located in a critical area from an aesthetic perspective, the authors decided to carry out a confo-

Imaging diagnosis

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FIGURE 1: Pinkish lesion of approximately 5mm on right nasal tip (arrow)

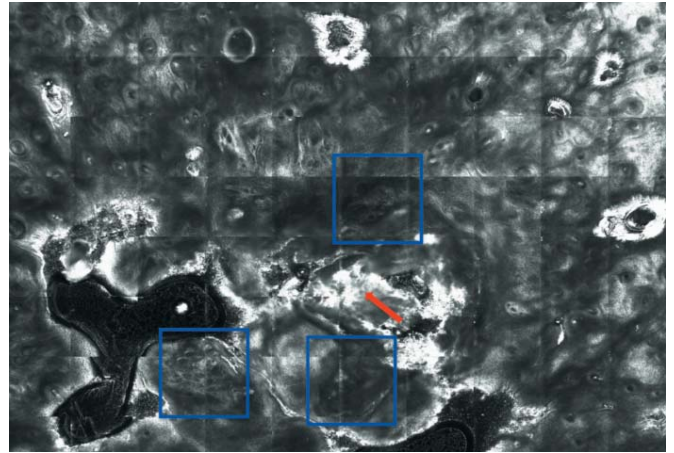


FIGURE 3: Confocal microscopy of the lesion in the nasal tip (BCC) in mosaic (8x8mm). The red arrow indicates the presence of the crust. Blue squares represent tumor islands areas

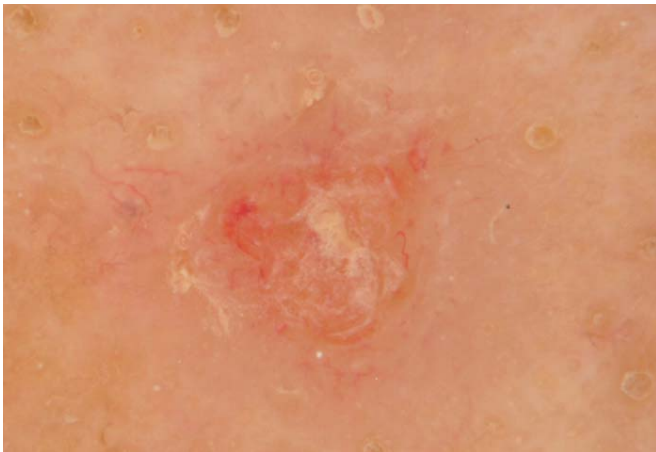


FIGURE 2: Dermaphoto (20X) of the lesion in the right nasal tip. It is possible to observe a nonspecific pattern with the presence of central scale, a yellowish area, (ulceration) and linear vessels

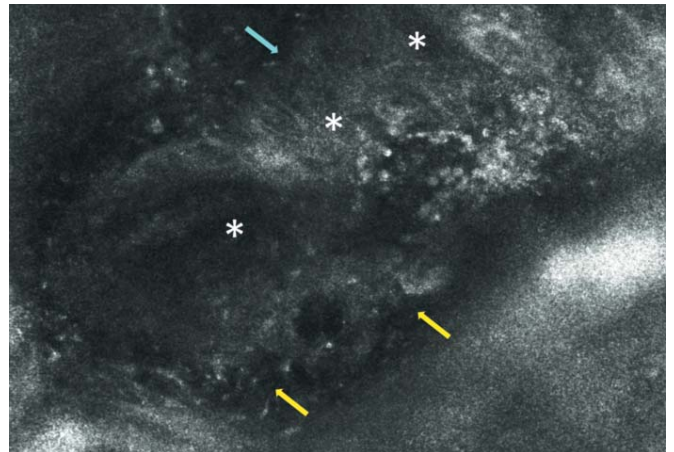


FIGURE 4: Confocal microscopy (500X500µm) evidencing a tumor island (white asterisk with cells in palisade (blue arrow) and cleft (yellow arrow).

cal microscopy examination in order to obtain a better diagnosis before choosing the treatment to follow. Through confocal microscopy it was possible to visualize areas whose epidermis presented keratinocytes with polarized nuclei and crusts. In the dermal-epidermal junction (DEJ) and dermis there were tumor islands with clefts surrounded by dense collagen fibers and linear vessels of great diameter (Figures 3 and 4). The confocal microscopy examination *in vivo* was consistent with the BCC diagnosis.¹ In the face of this suspicion, a biopsy was carried out in the most significant region of the examination, revealing a sclerodermiform BCC. Due to the histologic type and location of the lesion, Mohs surgery was chosen.² Transverse histological sections were carried out in the first stage 3 in the same plane where the dermoscopy and confocal microscopy were previously carried out (Figure 5). There was a high correlation between the findings of the Mohs biopsy and the confocal microscopy examination.

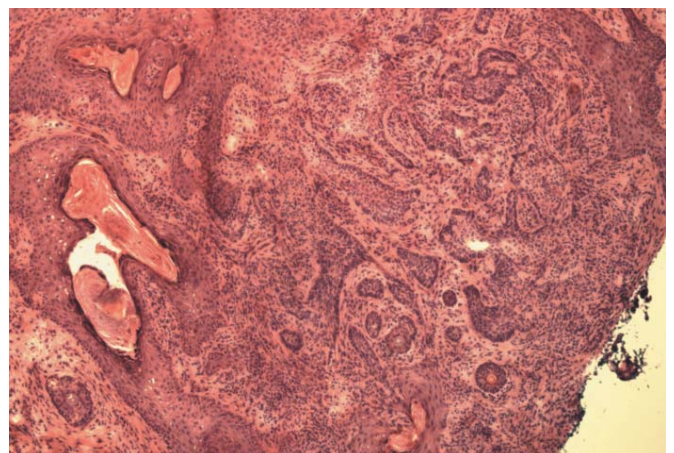


FIGURE 5: Histology (H&E, 100x) in transverse cut of sclerodermiform BCC. It is possible to observe small and elongated islands of basaloid cells among collagen bundles in the dermis

DISCUSSION AND CONCLUSION

The *in vivo* confocal microscopy examination is a noninvasive technique that assists in the diagnosis of nonspecific solitary pink lesions of the face, known as *pink lesions*. These lesions have the following conditions as the main differential diagnostic: actinic keratosis, squamous cell carcinoma, basal cell carcinoma and amelanotic melanoma.⁴ Dermoscopy often yields nonspecific patterns. Young patients are often times resistant to undergoing biopsy, especially in the face, therefore confocal microscopy arises as a valuable resource for defining the proper condition. ●

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