Introduction

Chondrodermatitis nodularis chronica helicis (CNCH) is a benign inflammatory disorder. It is characterized by a 4- to 5-mm large, painful, solitary nodule or papule on the helix. The pathogenesis of CNCH remains elusive. Differential diagnosis includes cutaneous malignancies such as squamous cell carcinoma (SCC) [1]. Diagnosis is mostly made clinically, but histopathological examination is recommended. Dermoscopy can help in the diagnosis of many tumoral or inflammatory skin disorders. To date, dermoscopic features of CNCH have not been defined. We sought to describe the dermoscopic findings in a series of patients with CNCH.

Case Presentation

Five patients (2 men and 3 women) with biopsy-proven, untreated CNCH were included. Median age was 72 years (range, 46-83 years). Clinical and dermoscopic photographs were taken before the biopsy, using a Canon Powershot G16 camera with a DermLite foto epiluminescence system (3Gen, Inc, San Juan Capistrano, CA). These images were evaluated independently by 4 dermatologists, 3 with 3 years of experience in dermoscopy and 1 with more than 15 years and considered an expert in the field. The process was not blind, as the final diagnosis (CNCH) was known by the evaluators. The final dermoscopic descriptions were achieved through a consensus among the evaluators.

Five lesions were analyzed. Two were located on the right helix, 1 on the left helix, and 2 on the left anthelix. Clinically, all the lesions were erythematous hyperkeratotic papules (Figures 1A and 2A), one of them eroded (Figure 2D). On dermoscopy, the lesions were round; 4 lesions presented with structureless white areas and irregular, ill-defined vessels at the periphery; the fifth had multiple erosions (Figure 2D). At the center, 1 lesion had keratin and a yellow-brown flat crust (Figure 1B), 1 had a central erosion (Figure 1C), 2 had a raised yellowish keratotic crust (Figure 2B and 2D), and 1 had a structureless yellowish area (Figure 2C). None of the dermatologists found any useful clue to differentiating CNCH from SCC by dermoscopy.

Conclusions

Differentiating CNCH from SCC is crucial, as clinical presentation can be very similar, and the ear is considered a high-risk
Figure 1. Chondrodermatitis nodularis chronica helicis. (A) Clinical image: Erythematous hyperkeratotic papule on the left anthelix. (B,C) Dermoscopy: Structureless white areas and irregular, ill-defined vessels at the periphery. At the center, keratin and a yellow-brown flat crust (B), an erosion (C). [Copyright: ©2019 Morgado-Carrasco et al.]

Figure 2. Chondrodermatitis nodularis chronica helicis. (A) Clinical image: Erythematous hyperkeratotic papule on the right helix. (B-D) Dermoscopy: Structureless white areas and irregular, ill-defined vessels at the periphery. A raised yellowish keratotic crust at the center (B). Structureless yellowish area (C). Yellowish crusts and erosions (D). [Copyright: ©2019 Morgado-Carrasco et al.]

location in SCC. It has been suggested that pain can be an important sign when diagnosing CNCH [1]. However, pain can also be associated with SCC and it may be a powerful patient-reported warning signal for invasive SCCs. Moreover, painful SCCs can be associated with increased mortality, at least in organ transplant recipients. Dermoscopic features of well-differentiated SCC include yellow scales, structureless white areas, and a central mass of keratin or yellow keratotic follicular plugs surrounded by a white rim and irregular vessels [2]. These dermoscopic characteristics are practically the same as those described for CNCH in this report.

The main limitation of our study is the small number of lesions analyzed.

CNCH presented dermoscopically with central keratin or an erosion surrounded by structureless white areas and ill-defined vessels. These characteristics did not allow the differentiation of CNCH from SCC. Histopathological examination is recommended. CNCH belongs to the group of dermatoses in which the diagnosis demands an integrated clinico-dermoscopic and histological diagnostic approach.

References

1. Wagner G, Liefeith J, Sachse MM. Clinical appearance, differential diagnoses and therapeutic options of chondrodermatitis nodularis chronica helicis Winkler. J Dtsch Dermatol Ges. 2011;9(4):287-291.
2. Rosendahl C, Cameron A, Argenziano G, Zalaudek I, Tschandl P, Kittler H. Dermoscopy of squamous cell carcinoma and keratoacanthoma. Arch Dermatol. 2012;148(12):1386-1392.