

## A red nodule of the scalp

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**Citation:** Lambertini M, Dika E, Patrizi A, Fanti PA, Baraldi C, Di Altobrando A. A red nodule of the scalp. *Dermatol Pract Concept*. 2018;8(1):48-50. DOI: <https://doi.org/10.5826/dpc.0801a10>

**Received:** July 26, 2017; **Accepted:** November 29, 2017; **Published:** January 31, 2018

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**Funding:** None.

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

All authors have contributed significantly to this publication. ML and ED contributed equally to this work.

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A 49-year-old Caucasian man was referred to our Unit for the recent occurrence of a nodular lesion on a long-standing nevus. A smooth, dome-shaped, reddish lesion, 1 cm in diameter, on a flesh-colored plaque with a velvety and verrucous surface was observed (Figure 1).

Dermoscopy of the nodule showed yellow to pink-colored lobules of different sizes, interposed by whitish pale septae. Glomerular and hairpin vessels were detected (Figure. 2). The underlying plaque revealed yellowish/orange structures sometimes gathered in clusters.

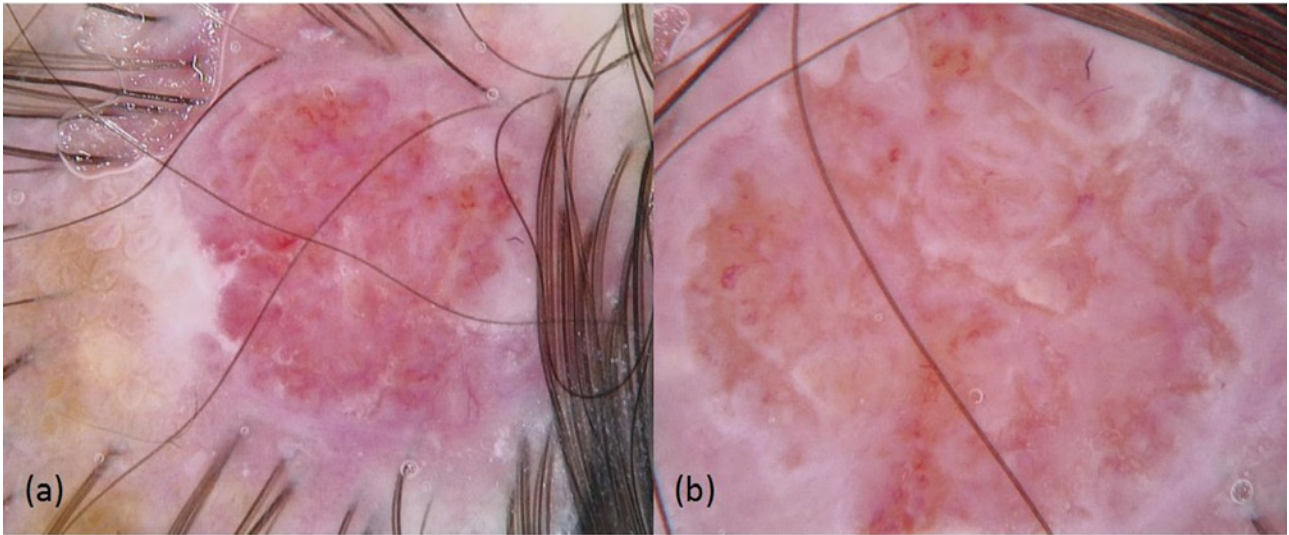
The entire lesion was excised. Microscopic examination revealed cystic invaginations: the upper parts were lined by epithelial cells that resembled those present on the surface epidermis, and the lower parts were characterized by irregular papillary projections of various size and aspect. The epithelium was made up of two layers of cells that were cylindrical at the luminal side and cuboidal at the base. Dilated capillaries, decapitation secretion, and plasmocyte-rich inflam-



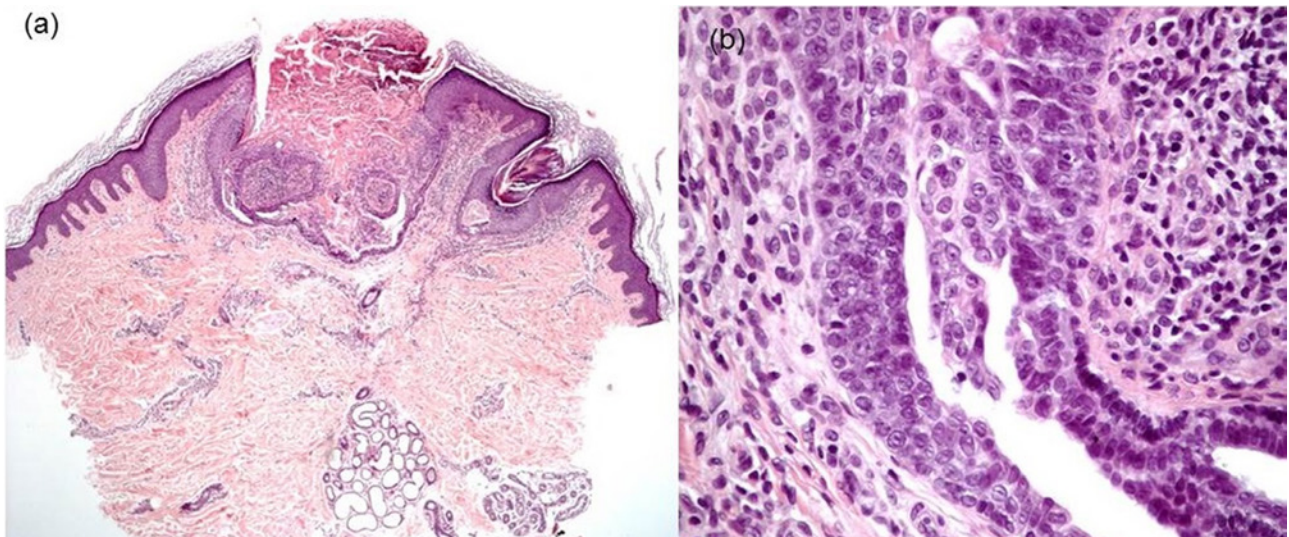
**Figure 1.** Clinical presentation of a red nodule of the scalp arising on a flesh-colored plaque with a velvety and verrucous surface. [Copyright: ©2018 Lambertini et al.]

matory infiltrate within papillary projections were observed (Figure 3).

*What is your diagnosis?*



**Figure 2.** (a, b) Dermoscopy of the nodular lesion showing yellow- to pink-colored lobules of different sizes, interspersed by whitish pale septae with few glomerular and hairpin vessels on an erythematous background. [Copyright: ©2018 Lambertini et al.]



**Figure 3.** (a, b) A histopathologic image revealing cystic invaginations with the upper parts lined by epithelial cells similar to the adjacent epidermis and the lower parts characterized by irregular papillary projections. The two-layered epithelium was made up of cylindrical cells at the luminal side and cuboidal cells at the base. Dilated capillaries, decapitation secretion, and plasmocyte-rich inflammatory infiltrate within papillary projections were observed (original magnification, H&E, 2X; 10X ). [Copyright: ©2018 Lambertini et al.]

A final diagnosis of syringocystadenoma papilliferum (SCAP) on sebaceous nevus (SN) was made.

## Discussion

SCAP is a rare, benign adnexal neoplasm with hamartomatous features. The histopathogenesis is still to be determined, but the origin from apocrine glands seems to be the most accepted. A possible derivation from eccrine or undifferentiated pluripotential cells has also been reported [1-4]. SCAP affects males and females equally [2], developing at birth (50% of cases) or in childhood/adolescence [3,5]. At puberty a dimensional growth may be displayed [2,3]. SCAP usually arises on the scalp, face and neck, and less commonly on

other regions, such as the trunk, eyelids and genitalia [2-4]. Clinically it appears as a hairless, smooth, or verrucous single papule or plaque, but multiple elements may occur, especially on SN [2-4]. SCAP may also be associated with different types of lesions, both benign (viral warts, SN, apocrine poroma, hidradenoma papilliferum) and malignant (basal cell carcinoma, sebaceous carcinoma) [2,3]. SCAP is most frequently related to SN (1/3 of cases) [2,4,6].

The differential diagnosis could include a wide spectrum of lesions presenting clinically as red nodules. In our patient, the occurrence of SCAP on an underlying SN was helpful in orienting the clinician, since amelanotic melanoma, hemangiomas, and angiokeratomas are rarely described on this background. Furthermore, dermoscopic examination was

useful in excluding other tumors displaying specific criteria, such as arborizing telangiectasias, large blue-gray ovoid nests, and multiple blue-gray globules, characteristic of basal cell carcinoma [7,8]. The detection of homogeneous areas or yellowish lobules observed in hidrocystomas, hidradenomas and pilomatricomas was suggestive for the diagnosis of an adnexal tumor.

Despite the uncommon malignant transformation into basal cell carcinoma (10%), squamous cell carcinoma, or syringocystadenocarcinoma, surgical excision is considered the treatment of choice in order to arrive at a final histological diagnosis [3,4]. After histopathologic confirmation, carbon dioxide laser treatment may be considered an option [2,3].

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