

# DERMOSCOPY OF THE MONTH

## Dermoscopic Features of Sebaceous Nevus

### - a Report of 4 Cases

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#### Abstract

Sebaceous nevus is a congenital hamartoma commonly associated with the development of secondary neoplasms. It has a predilection for the scalp and less commonly manifests on the face, the neck, and the trunk. The lesions presented in our cases are from the trunk of a 19-year old man, the forehead of a 25-year old man, the scalp of a 22-year old woman and from the face of a 45-year old man. Two of four cases were associated with secondary neoplasms, syringoma and basal cell carcinoma. Dermoscopy of nevus sebaceous demonstrated yellowish-brown globular structures, presenting either singly or in clusters and pink-brown-grey papillary appearance. The specific dermoscopic findings in our case associated with basal cell carcinoma were fine arborizing and serpiginous vessels at the periphery of the lesion and exophytic grey papillary structures. Dermoscopy can be a useful diagnostic tool for diagnosing and monitoring nevus sebaceous in order to detect different tumors associated with nevus sebaceous and avoid unnecessary excisions and scars in aesthetically sensitive locations.

**Key words:** Skin Neoplasms; Dermoscopy; Nevus; Neoplasms, Second Primary; Nevus, Sebaceous of Jadassohn; Diagnosis

#### Introduction

Sebaceous nevus is a congenital hamartoma, characterized by hyperplasia of the epidermis, immature hair follicles, and sebaceous and apocrine glands (1, 2).

It may be present at birth or develop in early childhood. It has a predilection for the scalp and less commonly manifests on the face, neck, and trunk. In early childhood, nevus sebaceous presents clinically as a smooth yellowish hairless plaque and during adolescence, lesions acquire a verrucous appearance; in late adulthood, they are commonly associated with the development of secondary neoplasms (1, 2). Different evolutionary stages of nevus sebaceous demonstrate different dermoscopic features. Detecting specific dermoscopic features of nevus sebaceous is especially important for its monitoring in order to detect a malignant transformation (3).

#### Case Reports

##### Case 1

A 19-year old man presented to our Department in May 2006 with a verrucous lesion on his left thoracic region. The physical examination revealed a brownish verrucous papule with irregular shape and border (Figure 1). Dermoscopy revealed yellow-grayish papillary appearance on the pink background (Figure 2). The total surgical excision was performed and histologic finding was specific for sebaceous nevus.

##### Case 2

A 25-year old man presented to our Department in February 2006 with a periorbital verrucous lesion. The physical examination revealed well-circumscribed brown colored, wart-like, irregularly shaped lesion with heterogeneous appearance (Figure 3). Dermoscopy showed yellowish-brown globules aggregated



**Figure 1.** Verrucous brownish papule on the left thoracic region.

in clusters with pink-grey papillary appearance at the periphery of the lesion (Figure 4). The lesion was removed surgically and histopathology revealed nevus sebaceous.

### Case 3

The third patient was a 22-year old woman presenting with a skin colored plaque with central crust on her scalp, which recently changed its appearance. Dermoscopy revealed yellowish-white globules and pink papillary appearance with central erosion (Figure 5). Histopathology revealed inflamed nevus sebaceous and syringoma.



**Figure 2.** Dermoscopy of the verrucous lesion on the left thoracic region: yellow-grayish papillary appearance on the pink background.



**Figure 3.** Periorbital verrucous plaque with heterogeneous appearance.

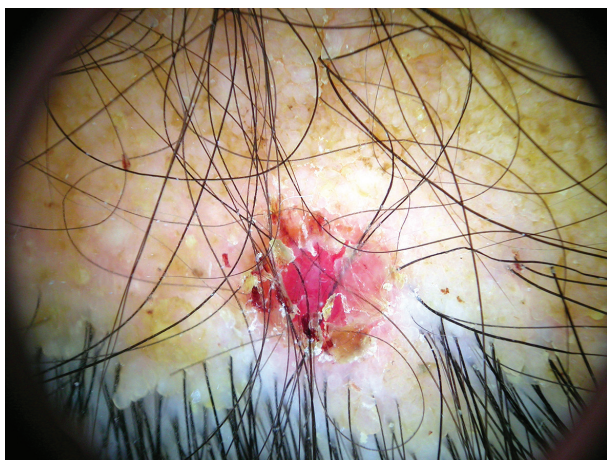
### Case 4

The fourth patient was a 45-year old man who presented with a painless pink-brown papillomatous plaque on his face. He stated that the lesion had been present since his birth, but recently, some alterations occurred in its shape and size. Dermoscopy showed multicolored brown-pink papillary appearance, pink-grey exophytic papillary structures with yellowish and brown globules organized in clusters, wart-like lesions and peripheral serpiginous and arborescent vascularization (Figure 6). The total surgical excision was performed and histologic finding revealed nevus sebaceous and incipient basal cell carcinoma.



**Figure 4.** Dermoscopy of the periorbital verrucous lesion: yellowish-brown globules aggregated in clusters with pink-grey papillary appearance at the periphery of the lesion.

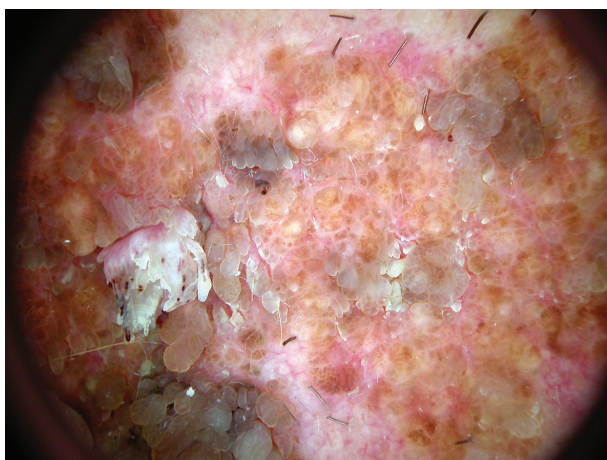




**Figure 5.** Dermoscopy of the skin colored plaque on the scalp: yellowish-white globules and pink papillary appearance with central erosion.

### Discussion

The clinical history of nevus sebaceous may be divided into three evolutionary stages. In early childhood, nevus sebaceous presents clinically as a smooth yellowish hairless plaque. During adolescence, lesions acquire a verrucous appearance and in late adulthood, they are commonly associated with the development of secondary neoplasms. About 10-20% of nevus sebaceous cases are complicated with malignant or benign neoplasms



**Figure 6.** Dermoscopy of the pink-brown papillomatous plaque on the face: multicolored brown-pink papillary appearance, pink-grey exophytic papillary structures with yellowish and brown globules organized in clusters, wart-like lesions and peripheral serpiginous and arborescent vascularization.

(4-7). For this reason, complete surgical excision is recommended before puberty for treatment of nevus sebaceous (8, 9).

On the other hand, nevus sebaceous shows distinctive dermoscopic features, which makes it possible to monitor it and avoid unnecessary excisions and scars on the face and other aesthetically sensitive locations (3). There are only a few case reports describing dermoscopic features of sebaceous nevus. Kelati et al. described different dermoscopic patterns of nevus sebaceous according to its evolutionary stages in the only published study of the dermoscopic features of 13 sebaceous nevi (3).

In the first stage of nevus sebaceous, Kelati et al. noticed yellowish globules aggregated in the clusters on the yellow background, while in the second stage of elevated verrucous plaques, four dermoscopic features were described – whitish-yellow lobular or papillary structures, yellow-grayish papillary appearance, brown globules on the yellow background, and yellowish globules aggregated in clusters, which was the most frequent dermoscopic aspect in the first and the second stages of nevus sebaceous (3). Lesions in our last three cases exhibited yellowish-white-brown globules presented either singly or aggregated in clusters. Yellow-pink-grey papillary appearance was a distinct dermoscopic finding in all our cases.

Dermoscopy is especially useful in detecting tumors associated with nevus sebaceous. The largest study that analyzed dermoscopy of tumors associated with nevus sebaceous was conducted by Zaballos et al. They analyzed dermoscopic features of 58 histopathologically confirmed cases of secondary neoplasms arising in nevus sebaceous (4). The most common reported benign neoplasms associated with nevus sebaceous were trichoblastoma and syringocystadenoma papilliferum and the most common malignant neoplasm was basal cell carcinoma. The most common dermoscopic pattern associated with basal cell carcinoma was the presence of asymmetrical large blue-grey ovoid nests and arborizing vessels, found in 50% of cases (4). Histopathology of our fourth case revealed nevus sebaceous and incipient basal cell carcinoma. The specific dermoscopic findings in this case were fine arborizing and

serpiginous vessels at the periphery of the lesion and exophytic grey papillary structures.

Zaballos et al. concluded that benign adnexal tumors associated with nevus sebaceous usually mimic dermoscopic patterns of basal cell carcinoma (4).

## Conclusion

The most specific features of different stages of sebaceous nevus are yellowish or brown globules aggregated in clusters on the yellow background, whitish-yellow lobular or papillary structures, and yellow-grayish papillary appearance. However, larger studies are needed to define specific dermoscopic criteria for diagnosis of nevus sebaceous and its associated tumors.

Dermoscopy can be a useful diagnostic tool for diagnosing and monitoring nevus sebaceous in order to detect different tumors associated with nevus sebaceous and avoid unnecessary excisions and scars in aesthetically sensitive locations.

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# Dermoskopske karakteristike sebacealnog nevusa – prikaz četiri slučaja

## Sažetak

**Uvod.** Sebacealni nevus predstavlja kongenitalni hamartom koji je često udružen sa razvojem sekundarnih neoplazmi. Može biti prisutan na rođenju ili se javlja tokom ranog detinjstva. Najčešće se nalazi na pogravini, vratu i trupu. Sebacealni nevus obično ima tri evolutivna klinička stadijuma. Različiti evolutivni stadijumi sebacealnog nevusa pokazuju različite dermoskopske karakteristike. Zbog udruženosti sebacealnog nevusa sa različitim benignim i malignim kutanim tumorima, indikovana je ekscizija ovih promena pre puberteta. **Prikazi slučaja.** Prikazujemo četiri slučaja: 19-godišnji muškarac sa verukoznom lezijom na grudnom košu, muškarac od 25 godina sa periorbitalnom verukoznom lezijom, žena od 22 godine sa plakom u boji kože na pogravini i muškarac starosti 45 godina sa papilomatoznim plakom na licu. Pacijenti su ambulantno pregledani na Klinici za dermatovenerologiju VMA tokom 2006. i 2007. godine. Učinjena je dermoskopija svih

opisanih promena, kao i ekscizija opisanih promena i uzorci su poslani na patohistološku analizu. Patohistološki nalazi svih opisanih promena su odgovarali sebacealnom nevusu, a u trećem i četvrtom slučaju sebacealnom nevusu i cilindromu i sebacealnom nevusu i bazocelularnom karcinomu. **Diskusija.** Klinička slika sebacealnog nevusa može biti podeljena u tri različita evolutivna stadijuma. U jedinoj do sada objavljenoj studiji koja se bavila dermoskopskim karakteristikama sebacealnog nevusa (Kelati et al.), opisani su različiti dermoskopski obrasci evolutivnih stadijuma sebacealnog nevusa. Takođe, u studiji koja se bavila dermoskopskim obrascima sekundarnih neoplazmi koje se javljaju udružene sa sebacealnim nevusom (Zaballos et al.), opisane su dermoskopske karakteristike koje su specifične za najčešće benigne i maligne tumore koji se javljaju udruženo sa sebacealnim nevusom. **Zaključak.** Žute ili smeđe globule raspoređene u ni-

zovima, na žutoj podlozi, beložute papilarne ili lobularne strukture i žutosivi papilarni izgled su najčešće dermoskopske karakteristike sebacealnog nevusa. Neophodne su veće studije koje bi utvrdile jasne der-

moskopske kriterijume za prepoznavanje sebacealnih nevusa, kao i sebacealnih nevusa i sa njima udruženih neoplazmi, što bi omogućilo njihovo lakše praćenje i izbegavanje nepotrebnih ekscizija.

**Ključne reči:** Kožne neoplazme; Dermoskopija; Nevus; Drugi primarni tumori; Jadason nevus lojne žlezde; Dijagnoza

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