

Nevus Sebaceous on Face: Histopathological and Dermoscopic Correlation

A 16-year-old boy presented with a single raised lesion over right cheek since birth, which gradually increased in size and became raised and greasy in texture since 3 years. Past and family history was noncontributory. There was no history of any other cutaneous and systemic involvement. On examination, a well-demarcated, greasy yellowish orange plaque of size 3×2 cm² was present over right cheek, with follicular prominences [Figure 1]. General physical and systemic examinations were within normal limits. Differential diagnosis of nevus sebaceous and nevoid sebaceous hyperplasia was kept.

On dermoscopic examination, yellowish and brownish globules on a yellowish background, perifollicular yellowish-brown globules, and linear vessels at the periphery of the lesion were seen [Figure 2]. Histopathology revealed verrucous proliferation of epidermis and dermis



Figure 1: A well-demarcated, greasy yellowish orange plaque of size 3×2 cm² present over right cheek

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showed ill-developed hair follicles, mature sebaceous glands with patchy inflammation [Figure 3]. On the basis of clinical, histopathological, and dermoscopic findings, a diagnosis of nevus sebaceous was made and patient underwent removal of the lesion.

Nevus sebaceous of Jadassohn (NSJ) is a hamartomatous lesion with an epithelial and adnexal origin which is typically asymptomatic at birth. Sebaceous nevus is a benign lesion that occurs most frequently on the scalp (59.3%) but has also been found on the face (32.6%), preauricular area (3.8%), neck (3.2%), and locations off the head and neck (1.3%).^[1] NSJ evolves through three stages. In the infantile stage, it presents as solitary smooth, yellow, well-circumscribed hairless plaques. At puberty, it becomes more prominent as a verrucous or mamillated appearance. The final stage is characterized by nodular or tumoral appearance with peripheral telangiectasias.^[2] Trichoblastoma is the most frequently occurring tumor in NSJ, followed by syringocystadenoma papilliferum.^[1]

The dermoscopic features include yellowish globules aggregated in a “cobblestone pattern,” whitish-yellow lobular aspect, yellow-grayish papillary appearance, homogenous yellowish, and peripheral vascularization (linear, irregular, or arborescent).^[3] In 80% of patients, brownish globules are seen, with two type of arrangements, first “cerebriform pattern” and another characterized by crater at center with peripheral striations or extensions.^[3]

Clinical, histopathological, and dermoscopic features correlation is given in Table 1.^[4] This case represents elevated plaque stage of NSJ which shows rounded structure of a yellowish-brown color on dermoscopy that corresponds to clusters of mature

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Table 1: Clinical, histopathological and dermoscopic correlation in Nevus sebaceous^[4]

Clinical stages	Histopathological features	Dermoscopic aspect
Patch or plaque stage	Immature sebaceous gland and hair follicles Localized in deeper dermis	Yellowish and brownish globules aggregated in clusters on yellow background
Elevated or verrucous plaque	Immature and mature sebaceous gland with inflammatory infiltrate Localized between reticular and papillary dermis	Whitish-yellow lobular or papillary aspect Yellow-grayish papillary appearance Yellowish and brownish globules on yellow background may be seen
Nodular or tumoral stage	Mature sebaceous gland Localized in superficial dermis	Homogenous yellowish appearance Vascularization



Figure 2: Dermoscopy showed yellowish (black arrow), perifollicular yellowish-brown (green arrow), and brownish (blue arrow) globules in cluster with linear vessels (green arrow), and red lacuna is the biopsy site (using DermLite 4; 3rd Gen; polarized mode, 10×)

superficial sebaceous glands as seen in histopathology of the lesion. Thus, dermoscopy is a handy tool in differentiating various stages of NSJ especially tumoral stage. Second, it is useful in differentiating it from other sebaceous affections, i.e., sebaceous adenoma (two types of dermoscopic pattern are seen, first central crater with crown vessels and blood crust and second arborizing vessels, yellow comedone-like globules without central crater), and sebaceous hyperplasia (a central crater with crown peripheral vascularization on a yellow background).^[5] Further, there are a few case reports of NSJ on face and usually are associated with scalp involvement.^[6,7] In this case, we report dermoscopic features of an isolated lesion of nevus sebaceous on face without involvement of scalp, which is quite rare. Furthermore, in our case we also found perifollicular yellowish-brown globules, which may be secondary to follicular plugging. To the best of our knowledge, these perifollicular yellowish-brown globules are not yet reported.

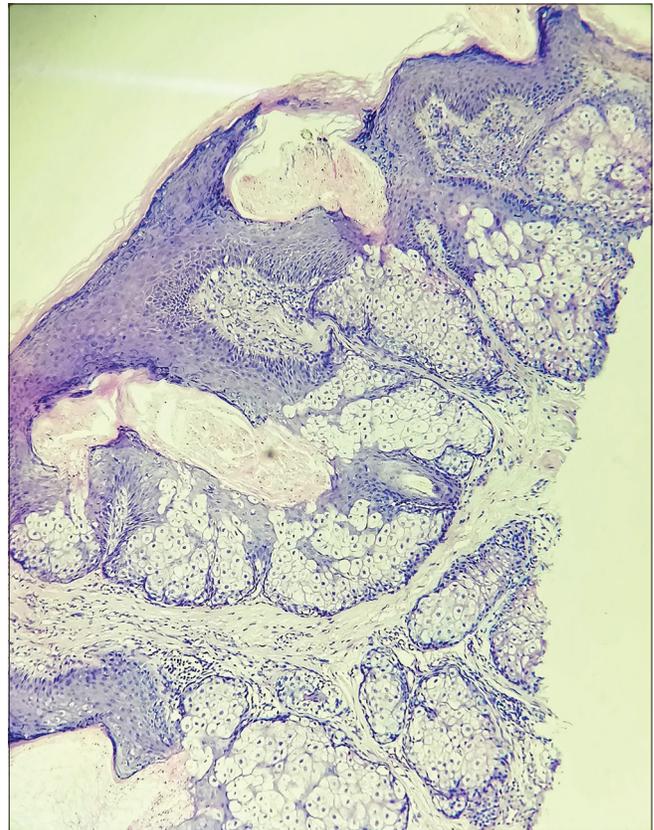


Figure 3: Verrucous proliferation of epidermis with follicular plugging and dermis showed rudimentary hair follicles surrounded by lobules of mature sebaceous glands with patchy inflammation around them (H and E; 40×)

As there is a risk of developing secondary benign or malignant neoplastic changes in NSJ, so careful monitoring is required for its early detection and dermoscopy is a useful tool for this monitoring without invasive procedure like biopsy. The treatment of NSJ includes surgical excision, CO₂ laser, photodynamic therapy, cryotherapy, and electrosurgery.^[2]

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not

be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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