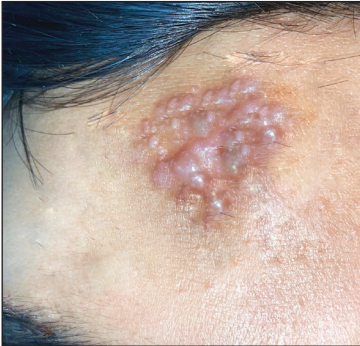
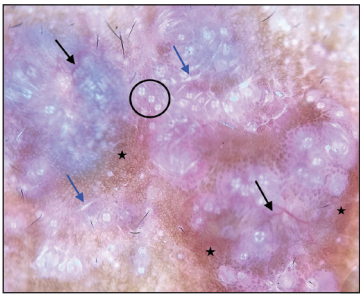


Noduloplaque on the Forehead

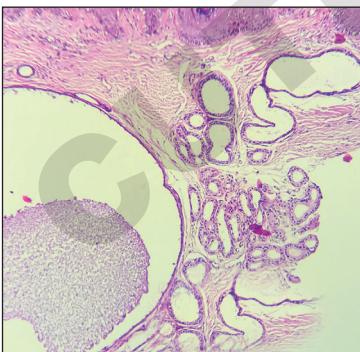
Payal Chauhan, MD, DNB, MNAMS; Dilip Meena, MD; Rashmi Jindal, MD



A 21-year-old man presented with a raised lesion on the forehead that had started as a single papule 16 years prior and gradually increased in number and size. There were no associated symptoms and no history of seasonal variation in the size of the lesions. Physical examination revealed multiple erythematous to slightly bluish translucent papules that coalesced to form a 3×3-cm noduloplaque with cystic consistency on the right side of the forehead (top). Dermoscopic examination (middle) (polarized noncontact mode) revealed a homogeneous pink to bluish background, scattered linear vessels with branches (black arrows), multiple chrysalislike shiny white lines (blue arrows), and dots arranged in a 4-dot pattern (black circle) resembling a four-leaf clover. Increased peripheral, brown, networklike pigmentation (black stars) also was noted on dermoscopy. Histopathologic examination of the noduloplaque was performed (bottom).



Original magnification ×10.



H&E, original magnification ×10.

WHAT'S YOUR DIAGNOSIS?

- epidermal cyst
- giant apocrine hidrocystoma
- nodular hidradenoma
- nodular melanoma
- pilomatricoma

PLEASE TURN TO **PAGE 92** FOR THE DIAGNOSIS

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doi:10.12788/cutis.0943

THE DIAGNOSIS: Giant Apocrine Hidrocystoma

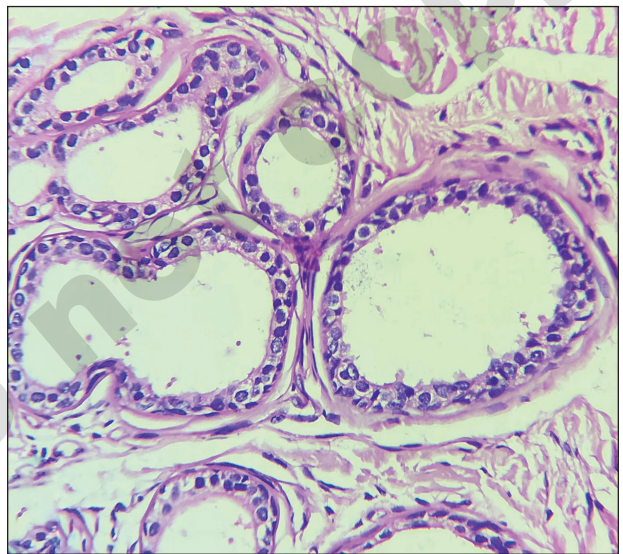
Histopathology of the noduloplaque revealed an unremarkable epidermis with multilocular cystic spaces centered in the dermis. The cysts had a double-lined epithelium with inner columnar to cuboidal cells and outer myoepithelial cells (bottom quiz image). Columnar cells showing decapitation secretion could be appreciated at places indicating apocrine secretion (Figure). A final diagnosis of apocrine hidrocystoma was made.

Hidrocystomas are rare, benign, cystic lesions derived either from apocrine or eccrine glands.¹ Apocrine hidrocystoma usually manifests as asymptomatic, solitary, dome-shaped papules or nodules with a predilection for the head and neck region. Hidrocystomas can vary from flesh colored to blue, brown, or black. Pigmentation in hidrocystoma is seen in 5% to 80% of cases and is attributed to the Tyndall effect.¹ The tumor usually is less than 20 mm in diameter; larger lesions are termed *giant apocrine hidrocystoma*.² Apocrine hidrocystoma manifesting with multiple lesions and a size greater than 10 mm, as seen in our case, is uncommon.

Zaballos et al³ described dermoscopy of apocrine hidrocystoma in 22 patients. Hallmark dermoscopic findings were the presence of a homogeneous flesh-colored, yellowish, blue to pinkish-blue area involving the entire lesion with arborizing vessels and whitish structures.³ Similar dermoscopic findings were present in our patient. The homogeneous area histologically correlates to the multiloculated cysts located in the dermis. The exact reason for white structures is unknown; however, their

visualization in apocrine hidrocystoma could be attributed to the alternation in collagen orientation secondary to the presence of large or multiple cysts in the dermis.

The presence of shiny white dots arranged in a square resembling a four-leaf clover (also known as white rosettes) was a unique dermoscopic finding in our patient. These rosettes can be appreciated only with polarized dermoscopy, and they have been described in actinic



Histopathology visualized decapitation secretion from the inner layer of cells (H&E, original magnification $\times 40$).

Dermoscopic Findings for Apocrine Hidrocystoma and Its Differential Diagnoses

Diagnosis	Dermoscopic findings
Apocrine hidrocystoma (current case)	Homogeneous pink to bluish area, scattered linear vessels with branches, white lines, white dots arranged in a 4-dot pattern; increased peripheral, brown, networklike pigmentation
Epidermal inclusion cyst ⁵	Ivory-white background with punctum with ruptured epidermal cyst showing red lacunae and peripheral linear branched vessels
Nodular hidradenoma ⁶	Homogeneous area (pinkish in nonpigmented lesions and bluish [less commonly brownish] in pigmented lesions), polymorphic atypical vessels, and white structures
Nodular melanoma ⁷	Atypical vascular network, irregular polymorphic vessels, milky red areas, blue and black dots, globules, blotches, and ulceration
Pilomatricoma ⁸	Multiple irregular whitish structures and streaks with vascular structures such as reddish homogeneous areas and hairpin vessels in most cases; ulceration and structureless gray-blue areas

keratosis, seborrheic keratosis, squamous cell carcinoma, and basal cell carcinoma.⁴ The exact morphologic correlate of white rosettes is unknown but is postulated to be secondary to material inside adnexal openings in small rosettes and concentric perifollicular fibrosis in larger rosettes.⁴ In our patient, we believe the white rosettes can be attributed to the accumulated secretions in the dermal glands, which also were seen via histopathology. Dermoscopy also revealed increased peripheral, brown, networklike pigmentation, which was unique and could be secondary to the patient's darker skin phenotype.

Differential diagnoses of apocrine hidrocystoma include both melanocytic and nonmelanocytic conditions such as epidermal cyst, nodular melanoma, nodular hidradenoma, syringoma, blue nevus, pilomatricoma, eccrine poroma, nodular Kaposi sarcoma, and venous lake.¹ Histopathology showing large unilocular or multilocular dermal cysts with double lining comprising outer myoepithelial cells and inner columnar or cuboidal cell with decapitation secretion is paramount in confirming the diagnosis of apocrine hidrocystoma.

Dermoscopy can act as a valuable noninvasive modality in differentiating apocrine hidrocystoma from its melanocytic and nonmelanocytic differential diagnoses (Table).⁵⁻⁸ In our patient, the presence of a homogeneous pink to bluish area involving the entire lesion, linear branched vessels, and whitish structures on dermoscopy pointed to the diagnosis of apocrine hidrocystoma, which was further confirmed by characteristic histopathologic findings.

The treatment of apocrine hidrocystoma includes surgical excision for solitary lesions, with electrodesiccation and curettage, chemical cautery, and CO₂ laser ablation employed for multiple lesions.¹ Our patient was scheduled for CO₂ laser ablation, considering the multiple lesions and size of the apocrine hidrocystoma but was subsequently lost to follow-up.

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