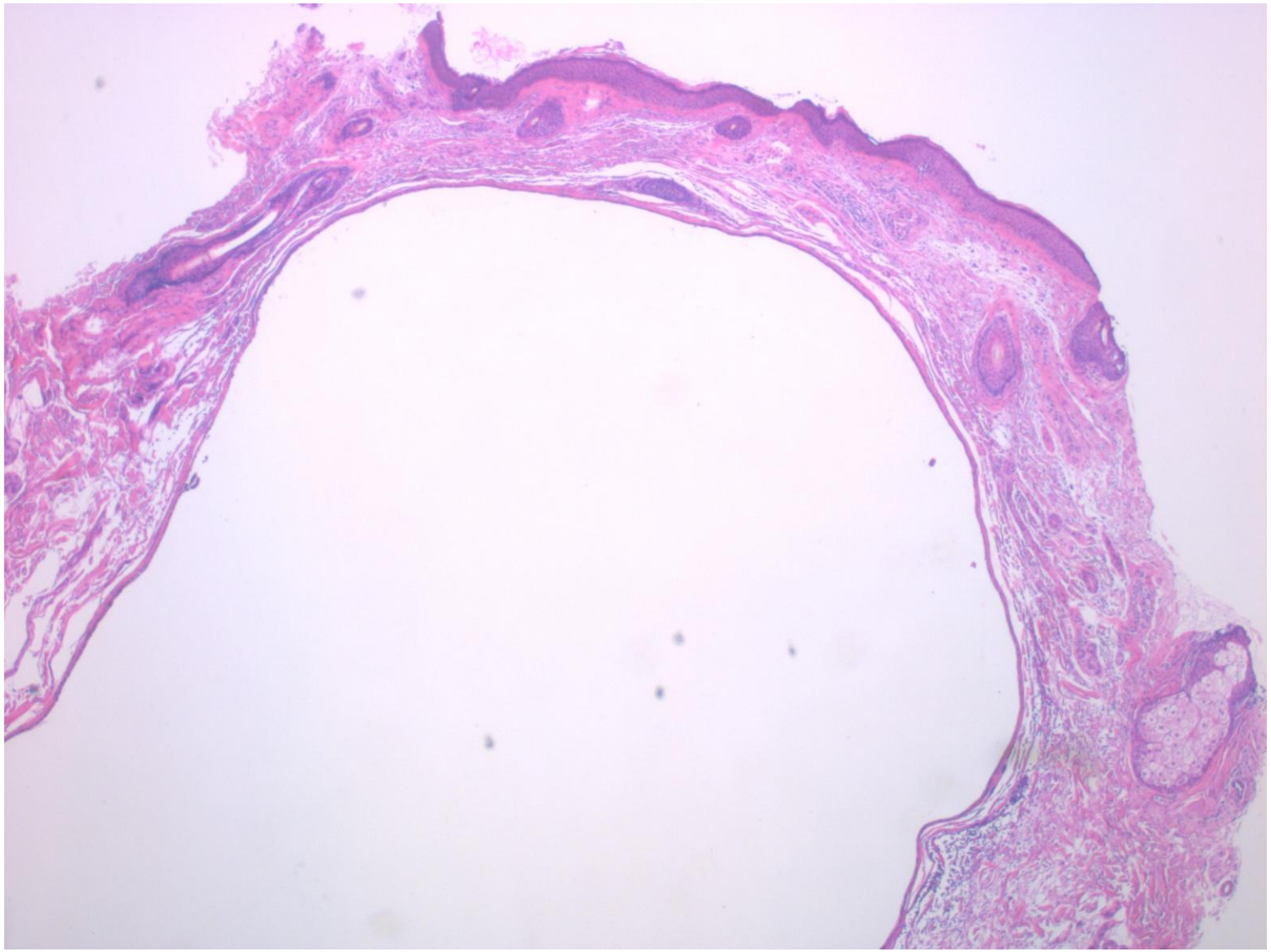
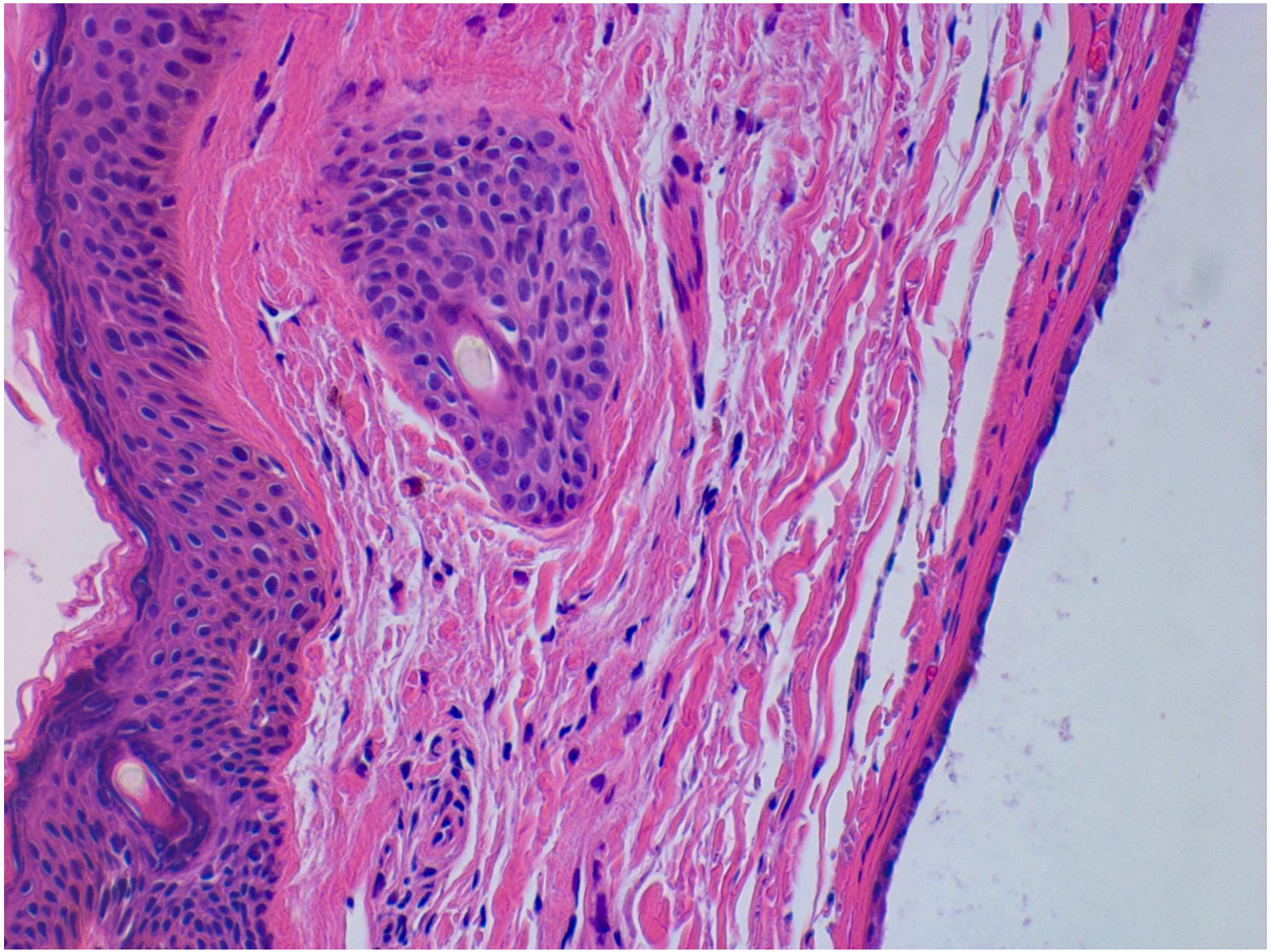
Eccrine hidrocystoma, blue-colored

Eccrine hidrocystoma, a benign, small (1-4 mm-sized) translucent, fluid-filled cyst of eccrine duct origin formed in the eye lid. It represents a ductal retention cyst, and often enlarges in conditions under perspiration. Hidrocystomas can be classified into solitary (Smith) type and multiple (Robinson) type. The solitary lesion presents as a skin-colored dome-shaped papule in the periorbital area usually located along the lower eyelids and canthi near the eyelid margin. Multiple type lesions are smaller in diameter and predominantly affect women in the perioribtal and malar areas. Microscopically, the cyst is lined by a double-layered cuboidal epithelium, and eccrine secretory tubules and ducts are located below the cyst in close proximity to the wall. There is no connection between the cyst and the overlying epidermis. A 4 mm-sized solitary eccrine hidrocystoma of the lower eye lid of a 68 y-o male patient is presented. The lesion appeared blue-colored, and the occurrence of PAS-reactive lipofuscin granules in the cyst-lining epithelia caused the blue color. Neither hemosiderin nor melanin granules are deposited. It is well known that the microscopic presence of dark-colored material in the deep part results in blue colored appearance when visualized from the surface (examples: blue nevus, blue sclera, blue cervix and superficial veins).

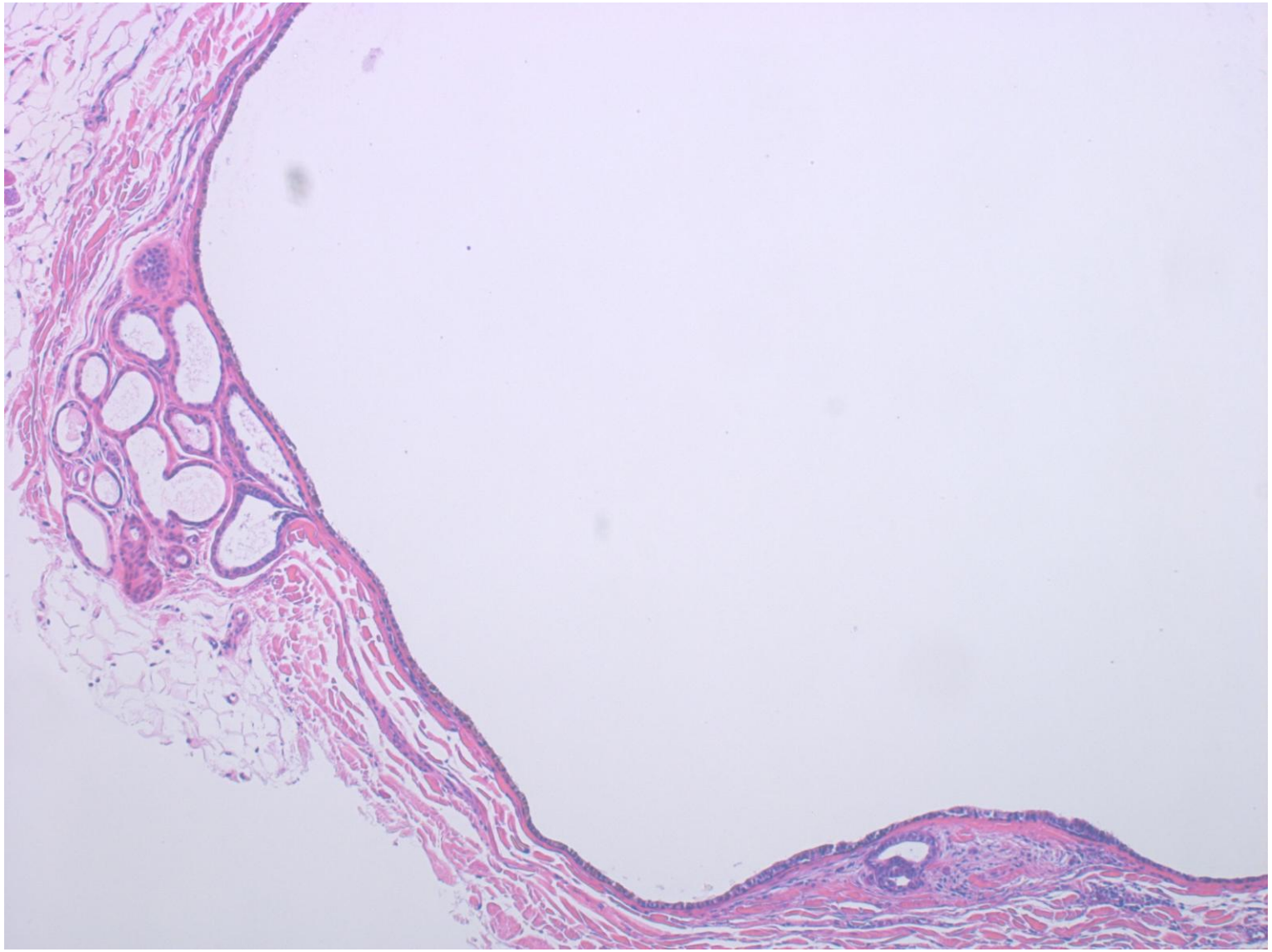
Ref.: Oke I, et al. Eccrine hidrocystoma. 2024; Am J Ophthalmol EyeWiki. https://eyewiki.org/Eccrine_Hidrocystoma



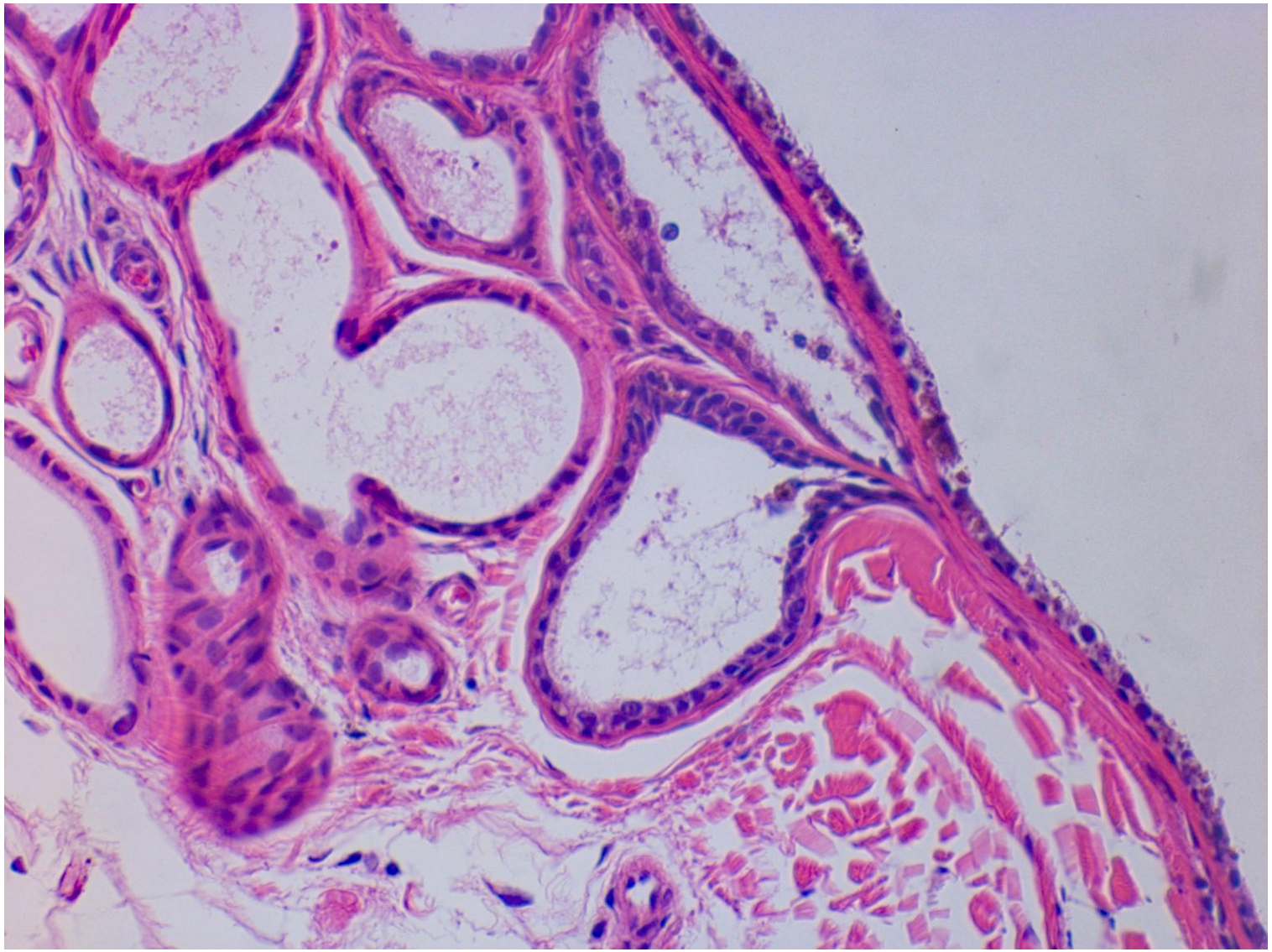
Eccrine hidrocystoma of the lower eye lid of a 68 y-o male patient. A 4 mm-sized solitary epithelial cyst is formed in the dermis. The lesion appeared blue-colored (H&E-1).



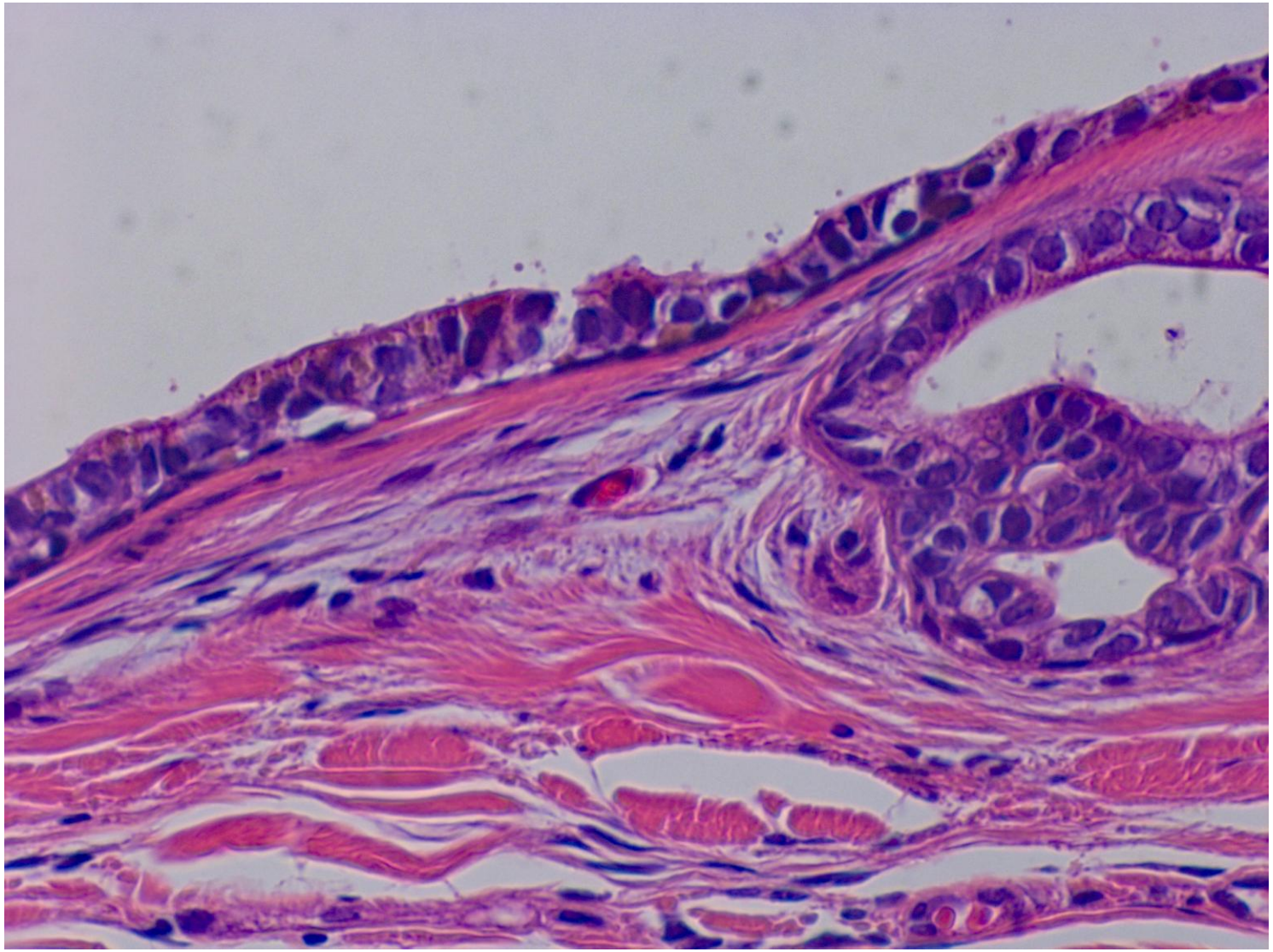
Eccrine hidrocystoma of the lower eye lid of a 68 y-o male patient. A 4 mm-sized solitary epithelial cyst is formed in the dermis. The lesion appeared blue-colored. The epithelial cyst is not connected with the epidermis (H&E-2).



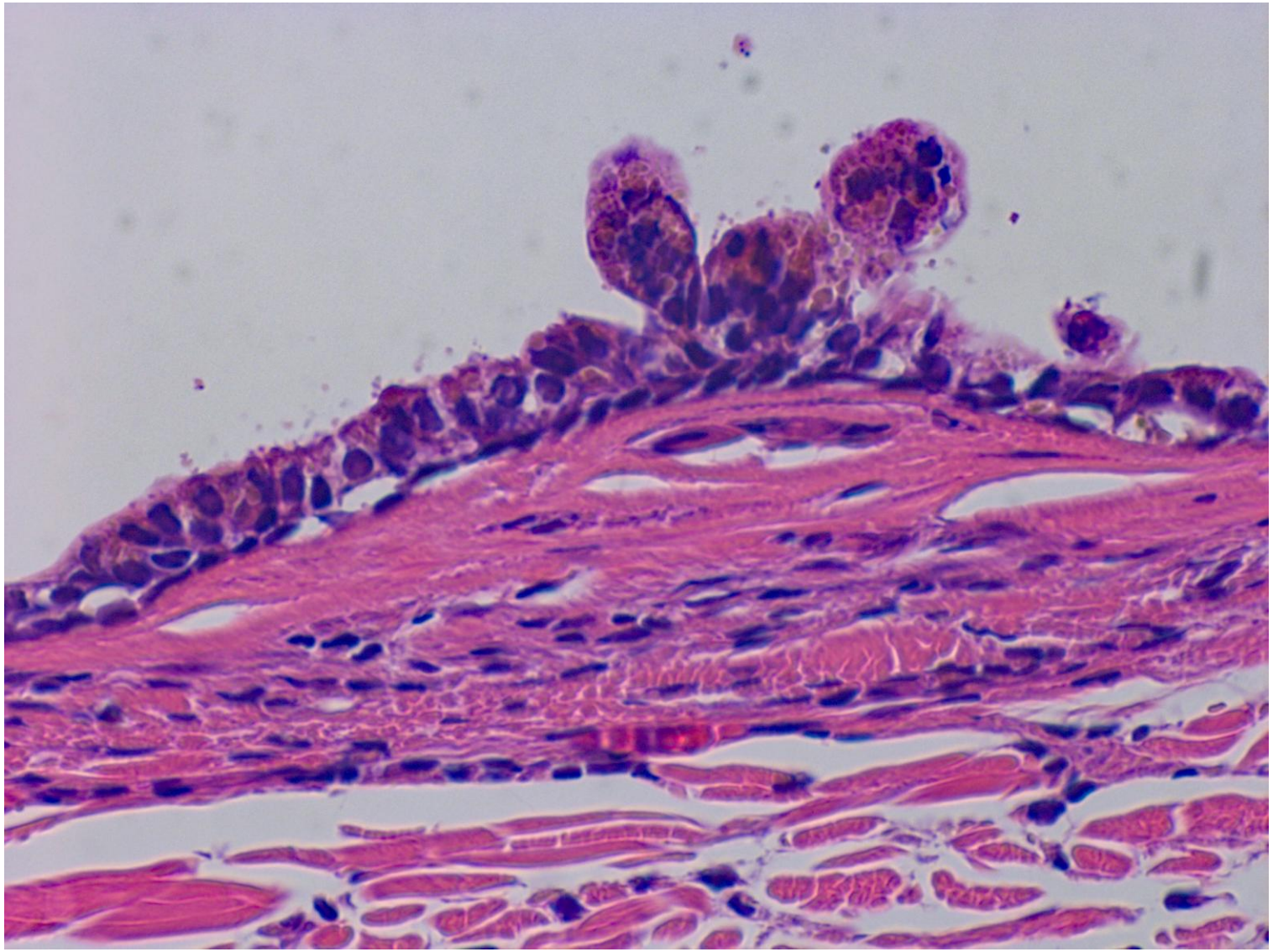
Eccrine hidrocystoma of the lower eye lid of a 68 y-o male patient. A 4 mm-sized solitary epithelial cyst is formed in the dermis. The lesion appeared blue-colored. At the base of the cyst, eccrine dusts are focally connected to the cyst lumen (H&E-3).



Eccrine hidrocystoma of the lower eye lid of a 68 y-o male patient. A 4 mm-sized solitary epithelial cyst is formed in the dermis. At the base of the cyst, eccrine dusts are focally connected to the cyst lumen. The lining epithelial cells contain PAS-reactive lipofuscin granules. Neither hemosiderin nor melanin pigments are observed in the lesion (H&E-4).



Eccrine hidrocystoma of the lower eye lid of a 68 y-o male patient. A 4 mm-sized solitary epithelial cyst is formed in the dermis. At the base of the cyst, eccrine dusts are focally seen in the cyst wall. Double-layered structure is observed. The lining epithelial cells contain PAS-reactive lipofuscin granules, causing the blue color of the cystic lesion (H&E-5).



Eccrine hidrocystoma of the lower eye lid of a 68 y-o male patient. A 4 mm-sized solitary epithelial cyst is formed in the dermis. Double-layered structure is observed. The lining epithelial cells contain PAS-reactive lipofuscin granules, causing the blue color of the cystic lesion. Neither hemosiderin nor melanin pigments are observed in the lesion (H&E-6).