

## Eyelid Schwannoma Mimicking Eyelid Amelanotic Nevus

Dear Editor,

Schwannoma is a benign peripheral nerve sheath tumor that frequently occurs in the orbit. However, an eyelid schwannoma is extremely rare [1], and only 20 cases have been reported. We report four cases of eyelid schwannoma and describe their common features.

A 47-year-old man presented with a lower eyelid mass of the left eye for two years. The mass measured 6 mm × 3 mm, and it was not cystic, was non-pigmented, and without tenderness or erythema. The cilia on the surface of the mass were preserved (Fig. 1A). Shaving excisional biopsy revealed well-circumscribed elongated spindle cells forming palisades with strong S-100 positivity, consistent with eyelid schwannoma (Fig. 1B, 1C).

A 36-year-old woman was referred for evaluation of a lower eyelid mass of the left eye that had persisted for one year. Located on muco-cutaneous junction just above the cilia line, the mass measured 1.5 mm × 2.5 mm and was solid and amelanotic without inflammation (Fig. 1D). Shaving excisional biopsy demonstrated spindle cells forming a palisading pattern and a hyper/hypocellular area, consistent with eyelid schwannoma (Fig. 1E).

A 60-year-old woman presented with a lateral upper eyelid mass of the left eye. The 3 mm × 3 mm-sized mass was painless, non-pigmented and solid (Fig. 1F). A shaving excisional biopsy was performed, revealing spindle cells forming a palisading pattern and a Verocay body. Hyper/hypocellular area were also found with S-100 positivity, consistent with eyelid schwannoma (Fig. 1G, 1H). This patient has been previously reported [2].

A 45-year-old man was referred for a lateral upper eyelid mass of the right eye lasting for two years. A 5 mm × 3 mm-sized, solid, amelanotic mass without tenderness was observed (Fig. 1I). Shaving excisional biopsy revealed spindle cells with a palisading pattern and a hyper/hypocellular area, consistent with eyelid schwannoma (Fig. 1J).

We reported four cases of eyelid schwannoma, and each case demonstrated common features of this benign tumor: solid, non-pigmented mass with a smooth surface. Schwannoma similar to other benign eyelid tumors, such as the epidermal inclusion cyst, amelanotic nevus and chalazion [1]. However, the eyelid schwannoma differs from these conditions in that the epidermal inclusion cyst is cystic and often has a central pore [3] and the chalazion shows focal inflammatory signs [4].

The most distinguishing pathologic feature of schwannoma is reactivity to S-100, a protein only expressed in the central nervous system, Schwann cell and melanocyte [2].

The presence of multiple schwannomas is related to neurofibromatosis, although there is no relationship with neurofibromatosis for a solitary schwannoma [5]. All four cases in the present report had no relationship with neurofibromatosis. Although malignant transformation has not been reported, schwannomas should be biopsied and completely excised with a negative margin to prevent recurrence with more aggressive behaviors.

In conclusion, we reported four cases of eyelid schwannoma. Eyelid schwannoma should be considered as one of the differential diagnoses when a non-pigmented solid eyelid mass with a smooth surface is encountered.

Yong Seok Mun

*Department of Ophthalmology, Seoul National University Hospital, Seoul, Korea*

Namju Kim

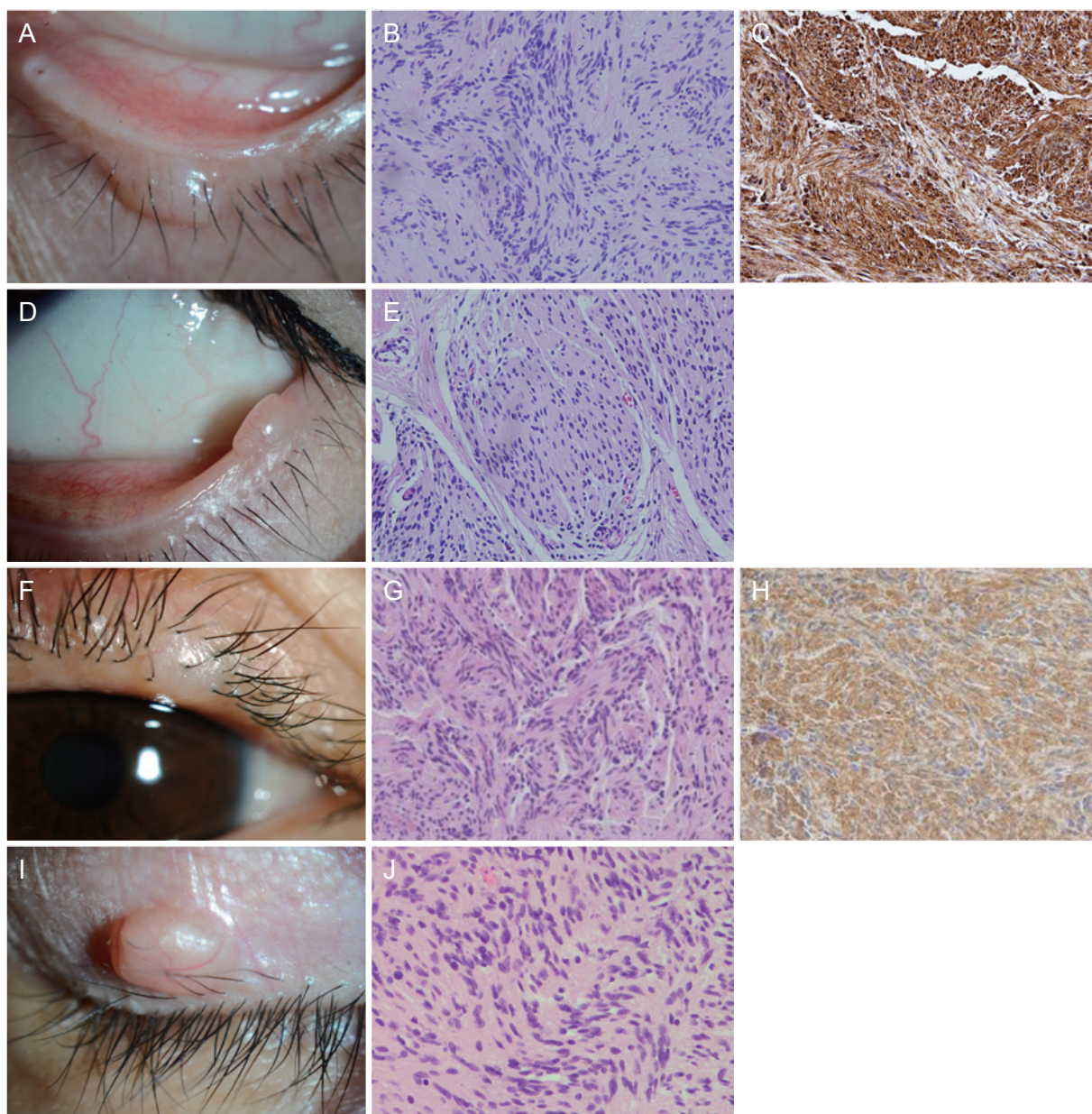
*Department of Ophthalmology, Seoul National University Bundang Hospital, Seongnam, Korea*  
*E-mail: kimnamju@snubh.org*

Ho Kyung Choung

*Department of Ophthalmology, Seoul National University Boramae Hospital, Seoul, Korea*

Sang In Khwarg

*Department of Ophthalmology, Seoul National University Hospital, Seoul, Korea*



**Fig. 1.** Clinical and histological appearance of eyelid schwannoma. (A) Case 1: Eyelid mass on the left lower eyelid. (B) Case 1: Well-circumscribed, elongated spindle cells formed palisades, consistent with Antoni type A tissue (hematoxylin and eosin [H&E],  $\times 200$ ). (C) Case 1: Strong reactivity for S-100 protein. (D) Case 2: Eyelid mass on the left lower eyelid. (E) Case 2: Spindle cells formed palisades, consistent with Antoni type A tissue (H&E,  $\times 200$ ). (F) Case 3: Eyelid mass on the left upper eyelid. (G) Case 3: Compact arrangements of spindle cells with Verocay bodies forming palisades, consistent with Antoni type A tissue (H&E,  $\times 200$ ). (H) Case 3: Intense positive staining with S-100 protein. (I) Case 4: Eyelid mass on the right upper eyelid. (J) Spindle cells with palisading pattern, consistent with Antoni type A tissue (H&E,  $\times 200$ ).

## Conflict of Interest

No potential conflict of interest relevant to this article was reported.

## References

1. Siddiqui MA, Leslie T, Scott C, Mackenzie J. Eyelid schwannoma in a male adult. *Clin Exp Ophthalmol* 2005;33:412-3.

2. Lee KW, Lee MJ, Kim NJ, et al. A case of eyelid schwannoma. *J Korean Ophthalmol Soc* 2009;50:290-3.
3. Foster JA, Carter KD, Durairaj VD, et al. *Orbit, eyelids, and lacrimal system*. San Francisco: American Academy of Ophthalmology; 2015. p.168.
4. Gerstenblith AT, Rabinowitz MP. *The Wills eye manual: office and emergency room diagnosis and treatment of eye disease*. Philadelphia: Lippincott Williams & Wilkins; 2012. p.137.
5. Lopez-Tizon E, Mencia-Gutierrez E, Gutierrez-Diaz E, Ricoy JR. Schwannoma of the eyelid: report of two cases. *Dermatol Online J* 2007;13:12.