Isolated Cavernous Hemangioma of the Conjunctiva: Case Report and Review of Literature

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Abstract

***Purpose*:** To report clinical and pathologic result of a young patient with isolated cavernous hemangioma of conjunctiva

***Case report*:** A 26-year-old man who presented with smooth, red, lobular surface mass was seen in the bulbar conjunctiva in temporal side with engorged episcleral and conjunctival vessels around the lesion. Excisional biopsy was performed. Pathologist confirmed the diagnosis of cavernous hemangioma of bulbar conjunctiva. Patient was followed-up for 18 months without recurrence and cosmetic feature was acceptable.

***Conclusion*:** Ocular surface is an uncommon site of cavernous hemangioma and isolated conjunctival cavernous hemangioma is rare, but this tumor is considered as a differential diagnosis of conjunctival vascular tumors.

***Keywords*:** Conjunctival Cavernous Hemangioma, Vascular Tumor

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Introduction

Vascular lesions of conjunctiva are divided into two groups; vascular tumors and vascular abnormalities including low flow (venous), high flow (arterial) and lymphatic lesions.[1] Vascular tumors of conjunctiva are rare. One example is Hemangioma, a developmental vascular malformation and an example of hamartoma. Hemangiomas are classified as venous or cavernous, and as arterial or capillary. As a vascular lesion, it could be defined pathologically as well-circumscribed hamartoma consisting of irregular thick- and thin-walled sinusoidal vascular channels.[2,3] Cavernous hemangioma is the most benign intraorbital tumor in adults, and conjunctival types are very rare.[4]

The purpose of this study is to describe a young patient with isolated cavernous hemangioma of conjunctiva as a rare entity.

Case report

A 26 years old, and healthy male presented with a painless red mass in the temporal side of the right eye. The lesion began three years periods consultation, and increased gradually to its present size over the past two years (Figure 1).

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Patient's chief compliant was foreign body sensation and ocular itching. The color of the lesion had not changed over this period and his main concern was cosmetic issue.

Visual acuity (VA) was $^{10}/_{10}$ in both eyes and intra ocular pressure was normal. Extraocular movement was intact. On examination of the right eye, a smooth, oval, dark red, lobular surface mass was found in the temporal side of the bulbar conjunctiva with engorged episcleral and conjunctival vessels around the lesion, with approximate size of 7×5×3 mm. The lesion was vascular, soft and easily mobile without any pulsation or change in size with Valsalva maneuver. Other anterior segment examinations were within normal limit. Fundus examination in both eyes was normal.

We did not find any vascular abnormality in the skin and other mucosal sites in head and neck region. An ultrasound biomicroscopy (UBM) was done for the patient which showed no extension of the lesion to deep tissues like sclera and ciliary body. A clinical diagnosis of conjunctival vascular lesion was made and excisional biopsy was performed. The lesion was excised under topical anesthesia and sent for histopathologic examination. There was no extension posteriorly beyond the tenon capsule. Pathologist confirmed the diagnosis of cavernous hemangioma of bulbar conjunctiva (Figure 2). Patient was followed-up to 18 months without recurrence. Appearance was cosmetically acceptable.

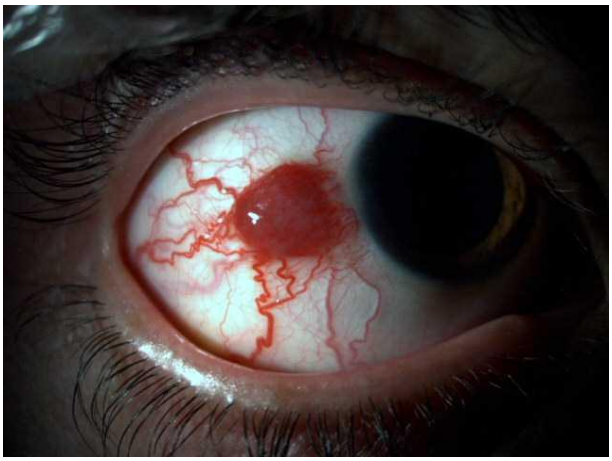

Figure 1. a smooth, oval, dark red, lobular surface mass in the temporal side of bulbar conjunctiva with engorged episcleral and conjunctival vessels around the lesion

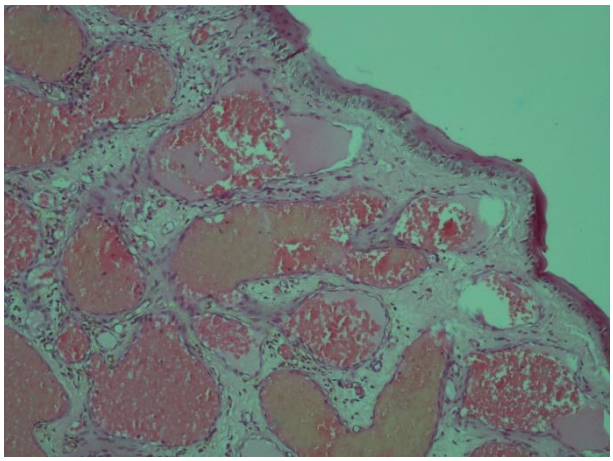

Figure 2. Histopathologic examination showed multiple, endothelium-lined cavernous spaces surrounded by fibromyxoid tissue (hematoxylin-eosin, magnification100).

Discussion

The most common vascular tumors of the conjunctiva are capillary hemangioma, lymphangioma, and pyogenic granuloma.[4] Ocular surface is an uncommon site of cavernous hemangioma. On the other hand, isolated conjunctival cavernous hemangioma is very rare and few cases had been previously reported. Elsas et al reported two (0.2%) case of cavernous hemangioma of conjunctiva among 302 epibulbar tumors in children collected in a 50 years period.[5] Shields et al found three cavernous hemangioma among the 140 cases of conjunctival vascular tumor (2.1%) by using the diagnostic database of oncology service at wills eye institute.[4] In a series of 1,643 conjunctival tumors shields et al found only four (0.2%) cases with cavernous hemangioma.[6] Some conjunctival vascular changes can occur in association with other vascular syndrome like sturge- weber syndrome, blue rubber bleb nevus syndrome and diffuse neonatal hemangiomatosis. But in majority of cases that previously reported the cavernous hemangioma was an isolated entity without any other associated abnormality,[4] (like our case).

Many of patients that have been reported were asymptomatic and their only concern was cosmetic factors. But kiratkli et al reported three patients with conjunctival cavernous hemangioma in association with multiple recurrent episodes of subconjunctival hemorrhage.[7] Excisional biopsy was performed and pathologic study confirmed the diagnosis.[4,5] In comparison to other studies, our patient was older than previously published case reports (7, 17 and 18 years old), malik et al reported a 70 years old female with isolated cavernous hemangioma of conjunctiva. In our patient tumor arose from the temporal side of bulbar conjunctiva similar to the Bulet Yazici report, but in contrast to the other three reports, witch the location of tumors were in caruncular region.[8,9]

Conclusion

Ocular surface is an uncommon site of cavernous hemangioma and isolated conjunctival cavernous hemangioma is rare, but this tumor is in differential diagnosis of conjunctival vascular tumors.

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