Cirsoid Aneurysm of Upper Eyelid

Cirsoid aneurysms are a rare arteriovenous fistula malformation of external carotid branches and scalp veins, usually located in the head-and-neck area and commonly of congenital or traumatic in origin. Cirsoid aneurysm has been synonymously called as plexiform angioma, aneurysma racesomsum, aneurysm cirsoide, and aneurysma serpentinum.[1] Majority of cirsoid aneurysms have been described on the scalp in the literature.[2] Acquired cirsoid aneurysm occurs months or years later after a traumatic insult which can be either significant or trivial in nature.

A 46-year-old female presented with two closely located nodular growths on the upper eyelid of the right eye for the past 18 months. She reported that the lesions were growing progressively and were associated with mild discomfort. She could not recall any previous history of trauma to the involved area. On cutaneous examination, two erythematous nodules were present on the upper eyelid of the right eye [Figure 1]. The lesions were not associated with any discharge. A thrill was felt on palpation of both the lesions. There was no reduction in visual acuity in the involved eye. Surgical excision of the lesions was performed under local anesthesia by an oculoplastic surgeon. Histopathology showed a dermal vascular tumor with multiple grouped thick-walled vessels seen in the papillary dermis and extending to the reticular dermis. The wall of the thick-walled vessels consists of fibrous tissue and smooth muscle cells and lined by a single layer of endothelial cells [Figures 2 and 3].

A cirsoid aneurysm is an abnormal fistulous connection between the feeding arteries and draining veins, without an intervening capillary bed.[3] Hemodynamically, cirsoid aneurysm is a high flow type of vascular malformation. In our case, the abnormal arteriovenous connection developed insidiously without any history of preceding trauma. Congenital cirsoid aneurysms are more frequent than the traumatic ones, with an incidence of up to 80% in some series.[4] Cirsoid aneurysm on the eyelid can be vision-threatening due to mechanical pressure on globe and risk of rupture and hemorrhage. Various treatment options are available including endovascular techniques (placing coils, gel, and foam), injection of sclerosing agents (sodium tetradecyl sulfate and absolute alcohol), and surgical excision. Complete surgical excision was attempted in our case with minimal blood loss and good hemostasis. Surgical excision allows us to study the histopathological features which are not possible with other treatment techniques. However, surgical modality may not be feasible in all cases with extensive area of involvement, and in such cases, endovascular treatment or sclerosing injection is an appropriate choice.

To conclude, we report an unusual case of cirsoid aneurysm of the upper eyelid which was managed with surgical excision with good outcome.

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.

Figure 1: Two nodular lesions in a close approximate location situated on the upper eyelid

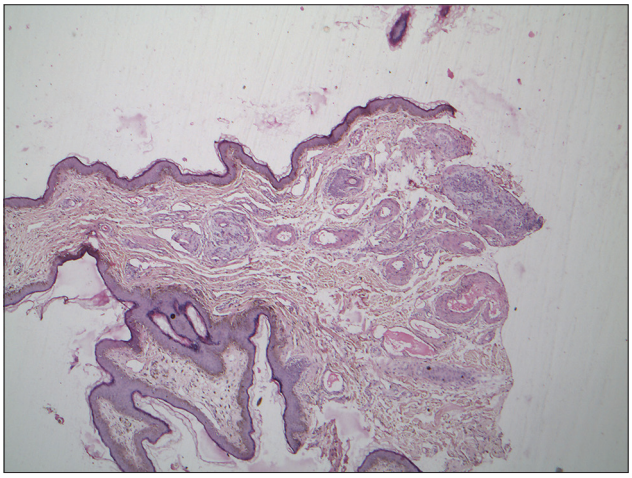

Figure 2: H and E-stained section showing a dermal vascular tumor with multiple grouped thick-walled vessels seen in the papillary dermis and extending to the reticular dermis

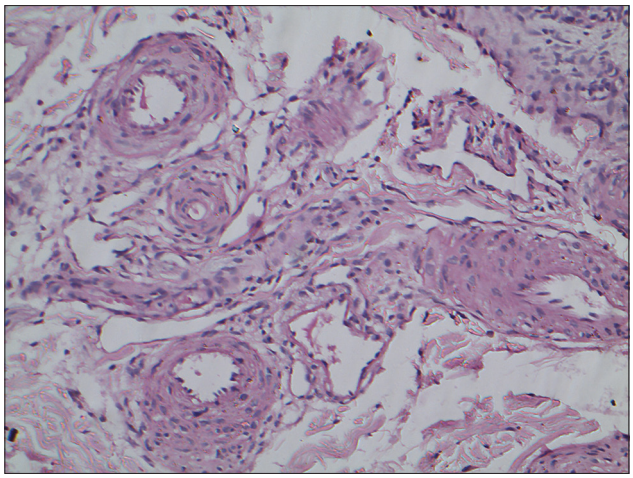

Figure 3: The wall of thick-walled vessels consists of fibrous tissue and smooth muscle cells and lined by single layer of endothelial cells

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Conflicts of interest

There are no conflicts of interest.

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