Iris varix is rare and little is known about its clinical characteristics. We treated a thrombosed iris varix that simulated an iris melanoma. A 53-year-old man developed a dark brown iris mass and hyphema in his left eye. Ultrasound biomicroscopy revealed a circumscribed mass of the iris stroma. Because of suspicion for melanoma, it was removed by sector iridectomy. Histopathologic examination disclosed an extensive focus of stromal hemorrhage, partially surrounded by endothelial cells that showed immunoreactivity to vascular markers. The histopathologic diagnosis was thrombosed iris varix. Iris varix is a rare condition that should be included in the differential diagnosis of iris melanoma.

A varix is a dilated vein that can undergo thrombosis and hemorrhage. In the ocular region, it is best known to affect the orbit, eyelids, and conjunctiva. Iris varix is rare. We report a clinicopathologic correlation of a thrombosed, hemorrhagic iris varix that simulated clinically an iris melanoma.

REPORT OF A CASE

A previously healthy 53-year-old man was seen with a 3-week history of an irritated left eye. His medical, familial, and ocular histories were unremarkable. Neither he nor his wife could recall having seen a prior iris lesion. Ocular examination revealed visual acuities of 6/6 m OU and intraocular pressures of 15 mm Hg OU.

His ocular examination was unremarkable except for a black mass measuring 4 × 3 × 3 mm located nasally within the stroma of the left iris (Figure 1). Superficial blood partly obscured the central part of the lesion. Active bleeding from the mass formed a hyphema inferiorly. On gonioscopy, the abruptly elevated mass obscured a view of the adjacent trabecular meshwork (Figure 2). The lesion blocked light during transillumination. Ultrasound biomicroscopy disclosed a well-circumscribed, echo-dense mass occupying full-thickness iris stroma. (Figure 3). Our differential diagnosis included iris melanoma with secondary hemorrhage vs adenoma of the iris pigment epithelium. Because we suspected an iris melanoma with secondary bleeding, we advised excision of the mass. It was removed by sector iridectomy and the pupil was reconstructed with a pupilloplasty using a 10-0 polypropylene (Prolene) suture. The patient had 6/6 visual acuity in the affected left eye 12 months postoperatively.

PATHOLOGIC FINDINGS

Gross examination of the excised tissue showed a full-thickness segment of iris measuring 4 × 3 × 2 mm. In the center of the specimen was an oval, red-brown nodule that protruded through the anterior border layer of the iris (Figure 4).

Histopathologic examination showed a section of iris with full-thickness hemorrhage that appeared to be compartmentalized by several delicate septae lined by flattened endothelial cells (Figure 5). These cells lining the dilated vascular channel were immunoreactive for vascular markers CD34 and factor VIII (Figure 6). No evidence was noted of melanocytic tumor of the iris stroma or pigment epithelium. No intertwining vascular channels
were seen to suggest cavernous hemangioma. These findings were more consistent with the diagnosis of iris varix rather than a cavernous hemangioma.

**COMMENT**

Vascular tumors and malformations of the iris are rare. In 1972, Ferry reviewed the reported cases of iris hemangioma and concluded that most of them had been misdiagnosed histopathologically, and that they actually were vascular iris melanoma, juvenile xanthogranuloma, or fibrovascular proliferative reactions. Despite Ferry’s skepticism about the existence of iris hemangiomas, we believe that there are definite cases of cavernous, capillary, and racemose hemangiomas of the iris, as well as iris varices.

Iris cavernous hemangioma generally occurs as small, nontumorous vascular tufts near the pupillary margin. However, it has been reported as a distinct iris mass either as a solitary finding or as part of congenital hemangiomatosis. The main complication of iris cavernous hemangioma is recurrent hyphema. We believe that the lesion that we describe here is a varix and not a cavernous hemangioma.

Iris capillary hemangioma can occur in association with adnexal cutaneous hemangiomas of infancy. Ruttum et al reported 2 such cases and reviewed the literature on the subject. The iris capillary hemangiomas tend to show spontaneous regression that parallels the regression of the associated cutaneous hemangioma.

Racemose hemangioma can also affect the iris. It is not a true neoplasm, but represents an arteriovenous communication, similar to the racemose hemangioma of the retina. The racemose hemangioma tends to be a stable lesion, with little tendency for growth or hemorrhage.

Varix is another rare vascular lesion of the iris. To our knowledge, there have been only 3 prior case reports of iris varix and only 1 in the English-language literature. In his review of vascular lesions of the iris, Ferry did not mention the possible existence of iris varix. Our review of 200 consecu-
tive cases of iris pseudomelanomas included no cases of iris varix.16

The case reported here is similar to the other reported cases of iris varix.13-15 It was a dark brown lesion that eroded through the anterior border layer of the iris as a smooth mass and was associated with hemorrhage into the anterior chamber. Although we believe that the lesion in our case is compatible with a varix, we agree with others13-15 that it may be difficult to differentiate a varix from a cavernous hemangioma clinically and histopathologically. The differentiation may not be clinically important, since both are benign vascular lesions with a tendency to bleed.

Iris varix should be included with causes of spontaneous hyphema, along with juvenile xanthogranuloma, melanoma, retinoblastoma, leukemia, and other conditions. Iris varix should also be included in the differential diagnosis of iris melanoma.

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REFERENCES


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**Ophthalmological Numismatics**

A look at the past...

Henri Dor, 1834-1912, was originally from Switzerland, where he taught ophthalmology at the University of Bern. He then moved to Lyons, France, where he practiced until his death. He was a founder of the French Ophthalmological Society and of the journal *Revue Generale D’ophtalmologie*.

This medallion was struck in 1911 by the artist R. Aube, in honor of Dor’s 76th birthday. The obverse (*Figure 1*) depicts Dor’s bust facing left; the reverse (*Figure 2*), a nearly nude woman with a diadem sitting in a chair to the left. Behind her is another woman, the personification of science, also facing left and sweeping clouds from the blazing sun with her right hand. The inscription below, “La Science Repousse les Tenebres,” translates to “Science Repells Darkness.”

Courtesy of: Jay M. Galst, MD, 30 E 60th St, New York, NY 10022.