Cavernous Hemangioma of the Retina

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Cavernous hemangioma of the retina is a rare congenital vascular hamartoma with a very particular appearance, which was described as early as 1937 [1]. It may be an isolated finding, or it may be associated with one or more intracranial cavernous hemangiomas, as well as with angiomatous hamartomas of the skin [1]. If the tumor does not affect the macula, patients are usually asymptomatic, unless vitreous hemorrhage or macular fibrosis develop.

ESSENTIALS OF DIAGNOSIS

Clinical examination reveals a group of blood-filled saccules within the inner retinal layers or on the surface of the optic disc [1, 3]. The appearance is usually described as a “cluster of grapes” (Fig. 1), that may be located anywhere in the retina, but usually follows the course of a retinal vein. It may be associated to an epiretinal membrane or a vitreous hemorrhage [3].

Fluorescein angiography shows delayed filling of the saccules, due to the low-flow status of this tumor [3]. Fluorescence blockage may be observed if there is hemorrhage present (Fig. 2).

DIFFERENTIAL DIAGNOSIS

Since the clinical appearance of the tumor is quite peculiar, differential diagnosis does not pose a significant challenge most of the times.

The main differential diagnosis is with a capillary hemangioma of the retina, which differs from a cavernous hemangioma in that the former has prominent feeder vessels that may be easily observed clinically and with fluorescein angiogram.

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Fig. (1). Cavernous hemangioma of the retina with characteristic “cluster-of-grapes” appearance.

Fig. (2). Fluorescein angiography shows hyperfluorescent saccular caps and blocked fluorescence due to retinal hemorrhages.
MANAGEMENT

In most instances, treatment for a cavernous hemangioma of the retina is not necessary because the lesion is outside of the macula. These tumors, however, can develop an epiretinal membrane or vitreous hemorrhage that may require vitrectomy [1, 4]. If the tumor involves the macula and visual acuity is decreased, photocoagulation [2, 3] or intravenous infliximab [1, 5] have been advocated.

CONFLICT OF INTEREST

The author confirms that author has no conflict of interest to declare for this publication.

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REFERENCES