Retinal capillary hemangioma (RCH) is an uncommon benign vascular tumor of the retina that can occur sporadically or in association with von Hippel-Lindau (VHL) syndrome. It was first described by Fuchs in 1882.1-3 RCH is the most frequent and the earliest manifestation of VHL disease. Therefore, an ophthalmologist is frequently involved in the care of patients with VHL.4 It is not clear whether RCH that occurs without a family history5 is most commonly sporadic or most commonly represents an initial manifestation of VHL.6,7 RCH lesions often lead to visual loss secondary to hemorrhage into the vitreous, retina, or subretinal space. They can also lead to macular edema or exudative retinal detachment.8 Various forms of therapy have been attempted, but all have inherent problems with efficacy or with side effects such as transiently increased exudation or epiretinal membrane formation.8 A wide variety of treatment methods have been described for angiomatoses of the retina.8 Laser photocoagulation is effective for small angiomatoses proliferations but is not effective for large lesions, particularly those associated with pronounced exudation and hemorrhage.8 Even without overlying media opacity, thermal laser photocoagulation probably has a limited depth of treatment, leaving a large amount of viable and potentially problematic vessels.9 Cryotherapy may be more effective in eventually closing the vessels in thicker lesions, but this treatment is associated with a transient increase in the amount of exudation present.10 Radiation therapy has been used, but it has the potential for causing significant long-term complications. Photodynamic therapy (PDT) with verteporfin has been used for the treatment of choroidal neovascularization in age-related macular degeneration.10 When activated, verteporfin appears to cause oxidative damage to the vascular endothelial cells.9 This damage leads to vascular occlusion, although the surrounding tissue is preserved.8

We report the first case of retinal capillary hemangioma treated with verteporfin photodynamic therapy combined with intravitreal triamcinolone injection.

Case Report

A 15-year-old female presented with metamorphopsia in the left eye for 7 days. Her best-corrected visual acuity...
(BCVA) was 20/20 in the right eye and 20/50 in the left eye. The intraocular pressure was within normal limits bilaterally, and the results of anterior segment examinations were unremarkable. The right fundus was normal. The left fundus revealed mild macular edema and hard exudates (Fig. 1A). At the 5 o’clock periphery lay a circumscribed exophytic retinal capillary hemangioma approximately 2.5 disc diameter (DD) with a prominent dilated and tortuous feeding artery and draining vein (Fig. 1B). Fluorescein angiography was performed, and fluorescein was evident in the dilated feeder arteriole (Fig. 1C, 1D). The retinal tumor had fine capillary filling, which rapidly became homogeneous (Fig. 1C).

Fig. 1. First visit (pre-treatment). (A) The left fundus reveals mild macular edema and hard exudates with tortuous dilated vessel. (B) Circumscribed endophytic retinal capillary hemangioma appears at the 5 o’clock periphery with a prominent dilated and tortuous feeding artery and draining vein. (C, D) Progressive and complete filling of the hemangioma and the retinal vein becomes prominent. (E) OCT image demonstrating cystic macular edema at first visit. (F) B-scan shows a well-demarcated endophytic retinal lesion without choroidal effects.