Circumscribed choroidal hemangioma

Category(ies): Retina, Vitreous
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Photographers: Randy Verdict, FOPS; Antionette Venckus, CRA

Choroidal hemangiomas are benign vascular hamartomas that can be diffuse (as seen in the case of Sturge-Weber syndrome) or circumscribed as shown here. They typically are red-orange in color with indistinct margins and are located in the posterior pole. There may be overlying retinal pigmented epithelium (RPE) changes or orange pigment. The lesions may have associated intraretinal or subretinal fluid. They display high internal reflectivity on A-scan echography.

To learn more about choroidal hemangiomas, read the related case report.

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Entry 1

Contributor: Jesse Vislisel, MD
Photographers: Randy Verdict, FOPS (figs. 1a, 1b); Antionette Venckus, CRA (fig. 1f)

These photographs show the appearance of a circumscribed choroidal hemangioma before and after treatment with photodynamic therapy (PDT). The lesion appeared as an elevated choroidal mass with overlying orange plaques and RPE atrophy. Vascular leakage from the lesion resulted in macular edema overlying the lesion, as seen in the OCT, and surrounding subretinal fluid resulting in an exudative retinal detachment, as seen on the B-scan echography. A-scan echography revealed high internal reflectivity, which is typical for these lesions. Overlying fibrosis can be seen in the post-treatment photograph. The treatment resulted in a reduction in tumor height and decreased subretinal fluid. It was successful in decreasing the patient’s metamorphopsia.
**Figure 1b**

**IR 30° [HS]**

**OCT 30° ART (25) Q: 15 [HS]**

**Figure 1c: OCT**

**Distance[+] = 3.40mm**  
**Velocity = 1550m/s**
Figure 1d: B-scan ultrasound

Figure 1e: A-scan ultrasound

**Length = 3.68mm**

**Velocity = 1550 m/s**
Entry 2

**Contributor:** Eric Chin, MD

These photographs show the appearance of circumscribed choroidal hemangiomas in two different patients (Figures 2a and 2b are one patient, figures 2c and 2d are another).
Entry 3

**Contributor:** Greg Zablocki, Retina Consultants of Colorado, P.C.

This patient presented with a visually significant choroidal hemangioma. The patient underwent photodynamic therapy employing the technique of Michels et al. After infusion of 6mg/m² of verteporfin (Visudyne) intravenously the lesion was illuminated for 163 seconds with the activating laser. Two months later vision had improved from 20/70 to 20/30 and the subretinal fluid had resolved clinically and on OCT.

Figure 3a

Figure 3b - The fleshy, lobular sub-retinal lesion from Figure 3a shows early phases of fluorescein angiograph with hyperfluorescence within the lesion (Dye persisted within the lesion 20 minutes after injection).
Figure 3c - Optical coherence tomography (OCT) section through the macula demonstrating sub-retinal fluid prior to treatment. Visual acuity 20/70.

Figure 3d - OCT eight months after treatment showing complete resorption of fluid - visual acuity 20/30.

Reference:

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