

Clinical-Medical Image

## MRI Aspect of Idiopathic Serous Choroidal Detachment: A Case Report of Type III Uveal Effusion Syndrome

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**Figure 1:** Orbitocerebral MRI: bilateral chorioretinal detachment, in the form of a biconvex lens exhibited high T2 signal. It is not limited anteriorly by the ora serrata and it diverges posteriorly as it approaches the optic.



**Figure 2:** Chorioretinal detachment on ocular ultrasound.

### Clinical Image

Uveal effusion syndrome (UES) is defined by an abnormal collection of fluid that expands the suprachoroidal space, producing internal elevation of the choroid. Some of the common causes of choroidal detachment are trauma, surgery complication, choroidal inflammation, hypotonia and melanoma. The idiopathic form seems to be the less common, and considered as a diagnosis of exclusion. The physiopathology of UES is not so clear, Histological finding shows amorphous glycosaminoglycan-like material filling the interfibrillary spaces of excised scleral tissue, with disruption of collagen fibers. In some patients there may be reduced macromolecular diffusion that interferes with the normal trans-scleral egress of albumin out of the eye. Another complementary hypothesis suggests that swollen sclera compresses the vortex veins leading to suprachoroidal fluid retention.

Patients with UES are divided into 3 groups, on the basis of axial length, refractive error and sclera abnormality. Type I is characterized with nanophthalmic eye, axial length of eye ball <19 mm, high grade hyperopia in refraction and rigid sclera. Type II of UES with non nanophthalmic eye, no remarkable refractive error and rigid sclera are identified. Then in the type III, the less common type, it is associated to normal size eyeball and sclera and no refractive error.

We report a case of a 59 year old man, with decreased visual acuity, pain and red eye for 3 weeks in the left eye. Best-corrected visual acuity was 20/20 (+1.75 sphere) in the right eye and light perception in the left eye. Slit-lamp examination showed conjunctival hyperemia, tortuosity of scleral vessels, traces of a Tyndall effect, in his left eye.

On MRI (Figure 1), the detachment, exhibited low T1 and high T2 signal, it is not limited anteriorly by the ora serrate and it diverges posteriorly as it approaches the optic disc.

The intraocular pressure was 16 mmHg in the right eye and 14 mmHg in the left. Bilateral cataract, small in the right and denser in left eye. Dilated fundus examination was inaccessible in the left eye and normal in the right eye. Ocular ultrasound examination (Figure 2) showed a chorioretinal detachment and an axial length of 24 mm of the left eye. After analyzing the complementary tests performed. Inflammatory cause and choroidal melanoma and metastatic tumor where excluded. The case corresponded with type III UES. Although, UES is a serious condition that can lead to severe and permanent visual loss in both eyes. It is considered as an exclusion diagnosis, complementary tests are mandatory to exclude other causes of uveal effusion. The role of imaging is therefore important for the differential diagnosis, in particular to rule out choroid melanoma.

**Keywords:** Lhermitte-Duclos; MRI; CT

#### Declaration of Interests

The authors declare that they have no competing interests.

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