# Cytomegalovirus retinitis detected by cerebrospinal fluid analyis in an immunocompetent women





### **Background:**

To report a rare case of Cytomegalovirus (CMV) retinitis in a healthy and immunocompetent patient.

#### **Patients & Methods:**

A 60-year-old woman presented with bilateral floaters and visual acuity (VA) of 20/25 in her right eye (RE) and 20/20 in her left eye (LE). Fundoscopy showed bilateral vitreous cellularity and numerous yellowish retinochoroidal infiltrates in the posterior pole and mid-retina of the RE. Only small rare infiltrates and atrophic areas of retinal pigment epithelium (RPE) were detectable in the LE mid-peripheral retina. Fluorescein angiography (FA) showed leakage and staining in the affected areas of the RE. Indocyanine green showed bilateral non-specific hypercyanescence. The RE lesions were visible as RPE elevations on Optical Coherence Tomography (OCT). Blood tests were negative for infections and autoimmune diseases, chest X-Ray and total body PET scan were normal. Head MRI showed areas of non-specific cerebral gliosis. RE aqueous and vitreous taps did not detect infection or neoplastic cells. In order to reduce ocular inflammation the patient started a treatment with Deltacortene 0.5-1 mg/kg/die with initial improvement. After 3 weeks RE got worse with extension of the retinal lesions to the macular region, appearance of retinal hemorrhages and peripheral retinal necrosis. RE VA decreased to hand motion. At that time a lumbar puncture was performed revealing the presence of CMV DNA in cerebrospinal fluid (CSF).

## **Therapy and Outcome:**

Steroidal therapy was stopped. Systemic Ganciclovir and four weekly intravitreal Ganciclovir injections in the RE significantly improved the CMV retinitis. VA gradually improved to 20/400, retinal necrosis resolved and fundus lesions dramatically reduced in size. LE remained stable (20/20).





## **Conclusions:**

The present case highlights the possibility of CMV retinitis in immunocompetent patient associated with CMV infection of the central nervous system. Although aqueous and vitreous taps are negative, a high index of clinical suspicion and lumbar puncture performance are important in order to start a prompt sight-saving treatment.