Acute Retinal Necrosis: Who did this mess?

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PURPOSE

To report an interesting case of VZV acute retinal necrosis and contralateral optic neuritis.

CASE PRESENTATION

- A 60 years old, male was referred to our department for evaluation of panuveitis of the left eye.
- The patient reported decreased vision since the last 17 days in the left eye and since the last 4 days in the right eye.
- He was receiving per os Valaciclovir 1grx3 for three days at the time of presentation.
- His medical record included alcoholic cirrhosis, diabetes and mesenteric venous thrombosis.

EXAMINATION

- Best corrected visual acuity (VA) was OD=20/40, OS=Light Perception
- Mild anterior segment inflammation was present in both eyes
- Fundus examination of the right eye revealed optic disc swelling and few white parapapillary focal chorioretinal lesions, whereas in the left eye vitritis and diffuse retinal hemorrhages and retinal necrosis were present
- The patient underwent intravenous Ganciclovir 550mgx2

DIAGNOSTIC PROCEDURES

The patient underwent:

- Fluorescein angiography (FA) which revealed hot disc of the right eye while due to extensive vitritis of the left eye FA images could not be captured.
- Aqueous humor sample polymerase chain reaction (PCR) testing of his left eye for HSV 1,2, VZV, CMV, EBV

PCR for VZV was positive

TREATMENT AND OUTCOMES

- The treatment was altered to Acyclovir IV 1grx3 and started oral methylprednisolone 2 days after (0.5 mg/kg/day).
- After 10 days of IV treatment, the patient was switched to per os Galacylcovir 1grx3 as maintance treatment.
- Regression of retinal inflammation and improvement of right eye's visual acuity up to 20/32 were observed, but visual acuity of the let eye went to no-light perception within days despite treatment.

CONCLUSION

Acute retinal necrosis is a rare and rapidly progressive, vision-threatening form of infectious panuveitis.
Principal causative viral agents are Varicella Zoster Virus (VZV) and Herpes Simplex Virus (HSV-1 and HSV-2)[1] although other agents have been associated such us CMV[2], EBV[7], SARS-CoV-2[5], Pseudorabies Virus (Suid herpesvirus 1)[8].
Treatment with the appropriate regimen has to be started immediately when the clinical suspicion is high not only for minimizing the duration of the acute phase of the disease but also for preventing the expansion to the other eye.

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MULTIMODAL IMAGING

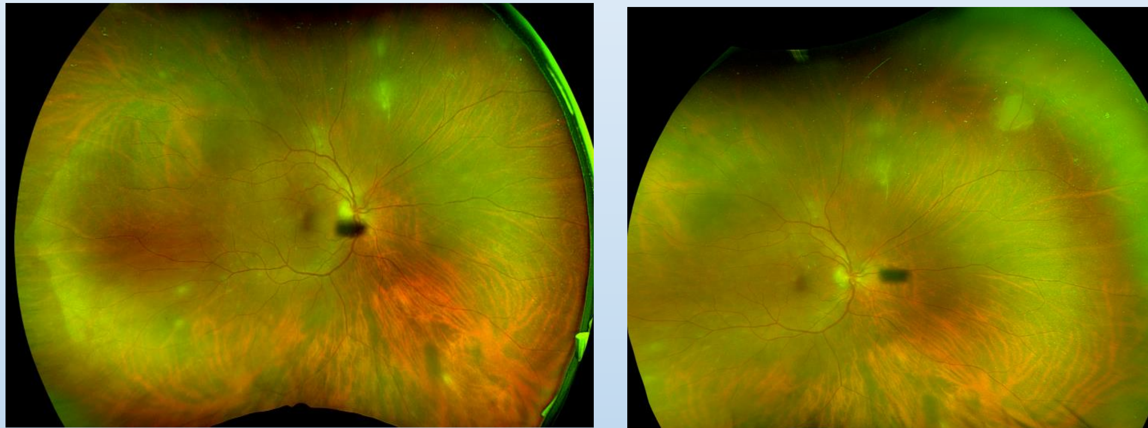


Fig 1. Fundus photograph of the right eye showing optic disc swelling and white focal chorioretinal lesions parapapillary, across the arcades and in the superior nasal periphery

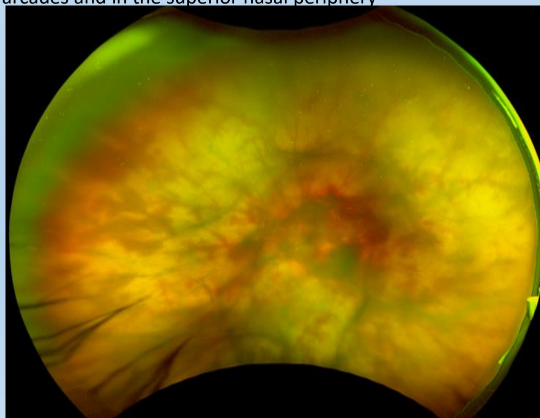
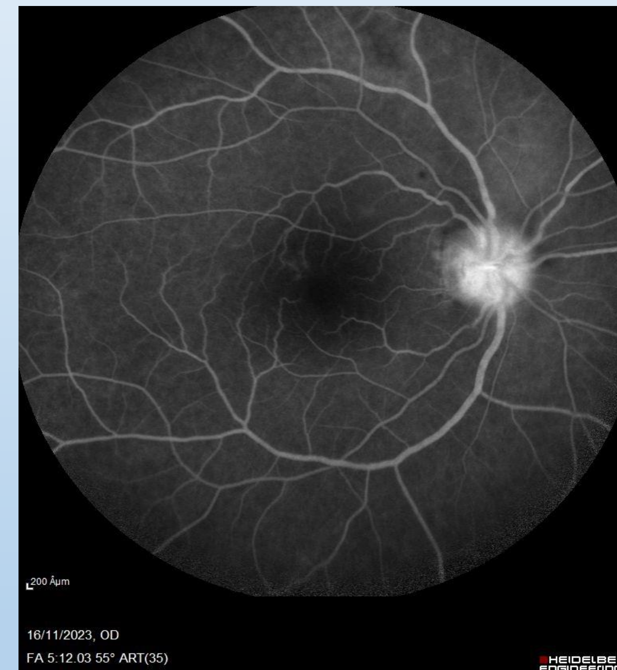


Fig 2. Fundus photograph of the left eye showing diffuse retinal hemorrhages, vitritis and retinal necrosis



Fluorescein angiography (FA) of the right eye revealing hot disc. FA images of the left eye were unable to be captured due to extensive vitritis.

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