



Varicella vasculopathy

Five years after treatment for chronic lymphocytic leukaemia

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CASE VIGNETTE

A man in his 60's had a history of chronic lymphocytic leukaemia (CLL) treated with rituximab plus bendamustine (r-bendamustine) five years previously, with complete remission.

He presented with left-sided herpes zoster ophthalmicus (fig 1) and was treated with oral aciclovir. At further review, he was noted to have right-sided acute retinal necrosis (fig 2-3). Empirical intravitreal foscarnet was given, and oral high dose valaciclovir was commenced. Anterior chamber tap confirmed varicella zoster virus.

While still taking high-dose oral valaciclovir, he developed right-sided limb weakness and facial asymmetry. CT and MR imaging identified left middle carotid artery infarction (fig 4).

His varicella vasculopathy was managed first with iv foscarnet, then oral valaciclovir.

4 months after his initial presentation he developed sudden vision loss in the right eye due to macular-on rhegmatogenous retinal detachment. He underwent successful primary repair with 360-degree laser and silicon oil fill. After removal of oil, his vision is preserved at 0.44 logMAR.

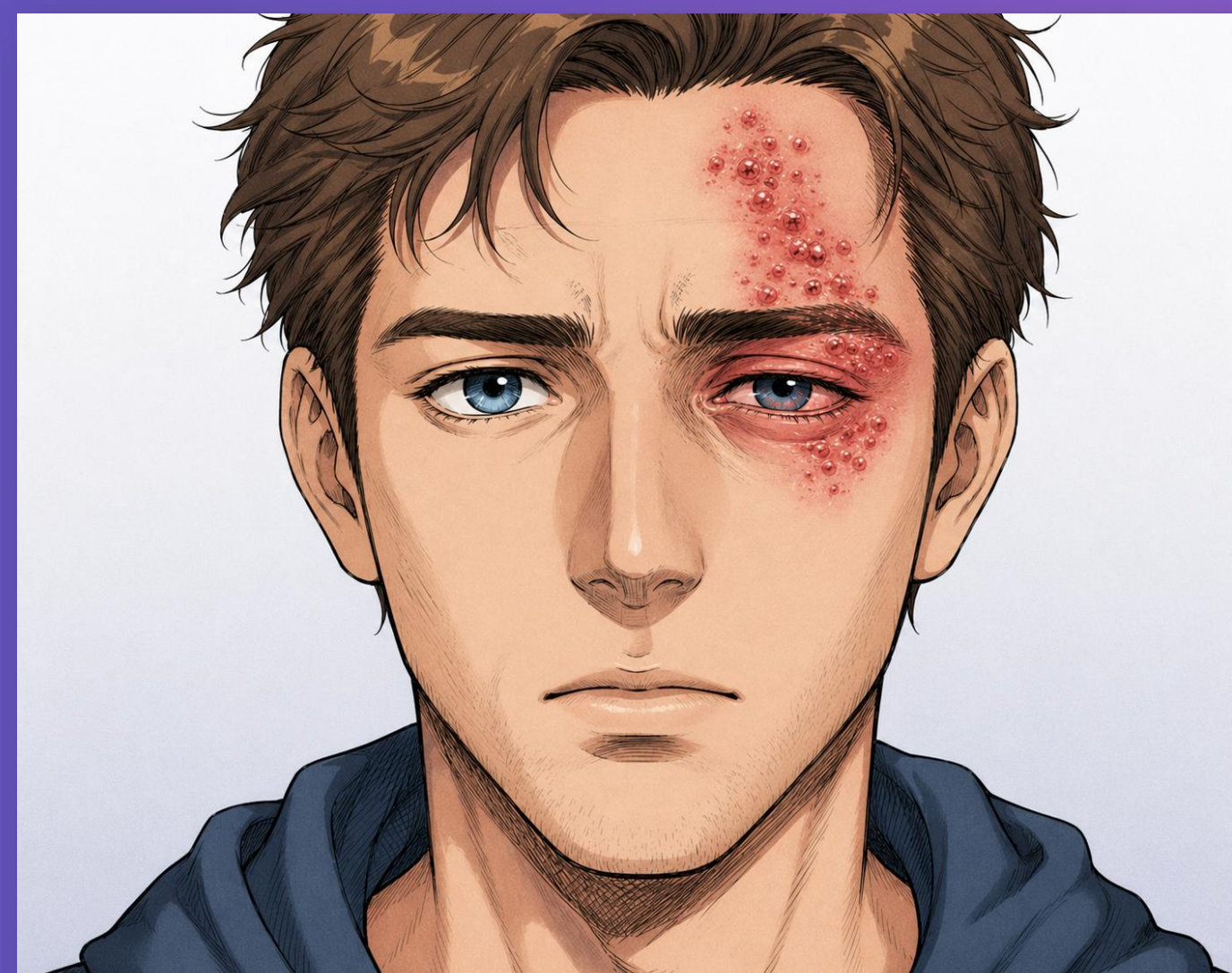


Figure 1.
Figure 4.

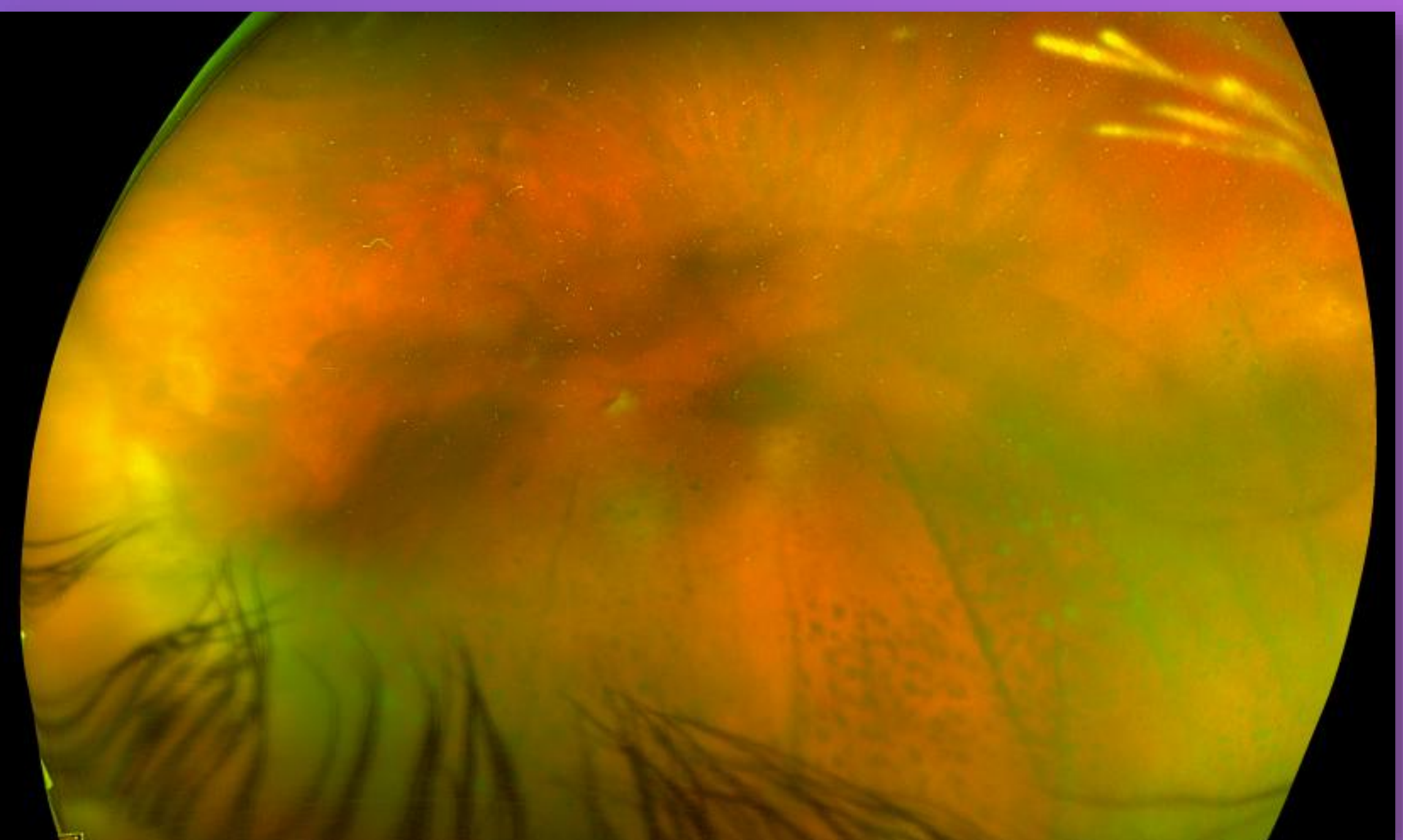
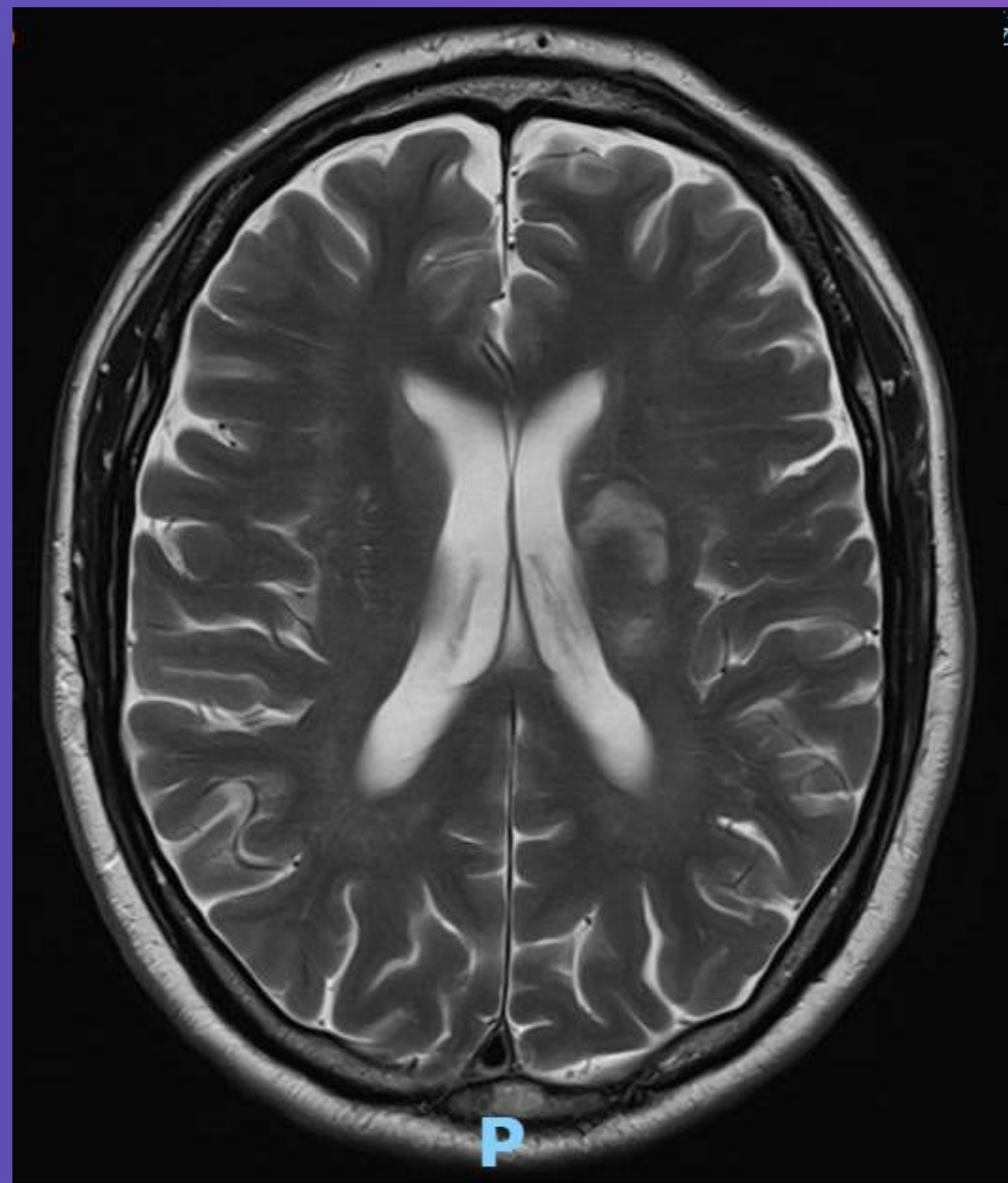


Figure 2.
Figure 3.



Clockwise from top left:
Figure 1. AI-generated image illustrating left herpes zoster ophthalmicus (ChatGPT, generated 27th April 2026).
Figure 2. Optos pseudocolour image of the right fundus at first presentation with acute retinal necrosis.

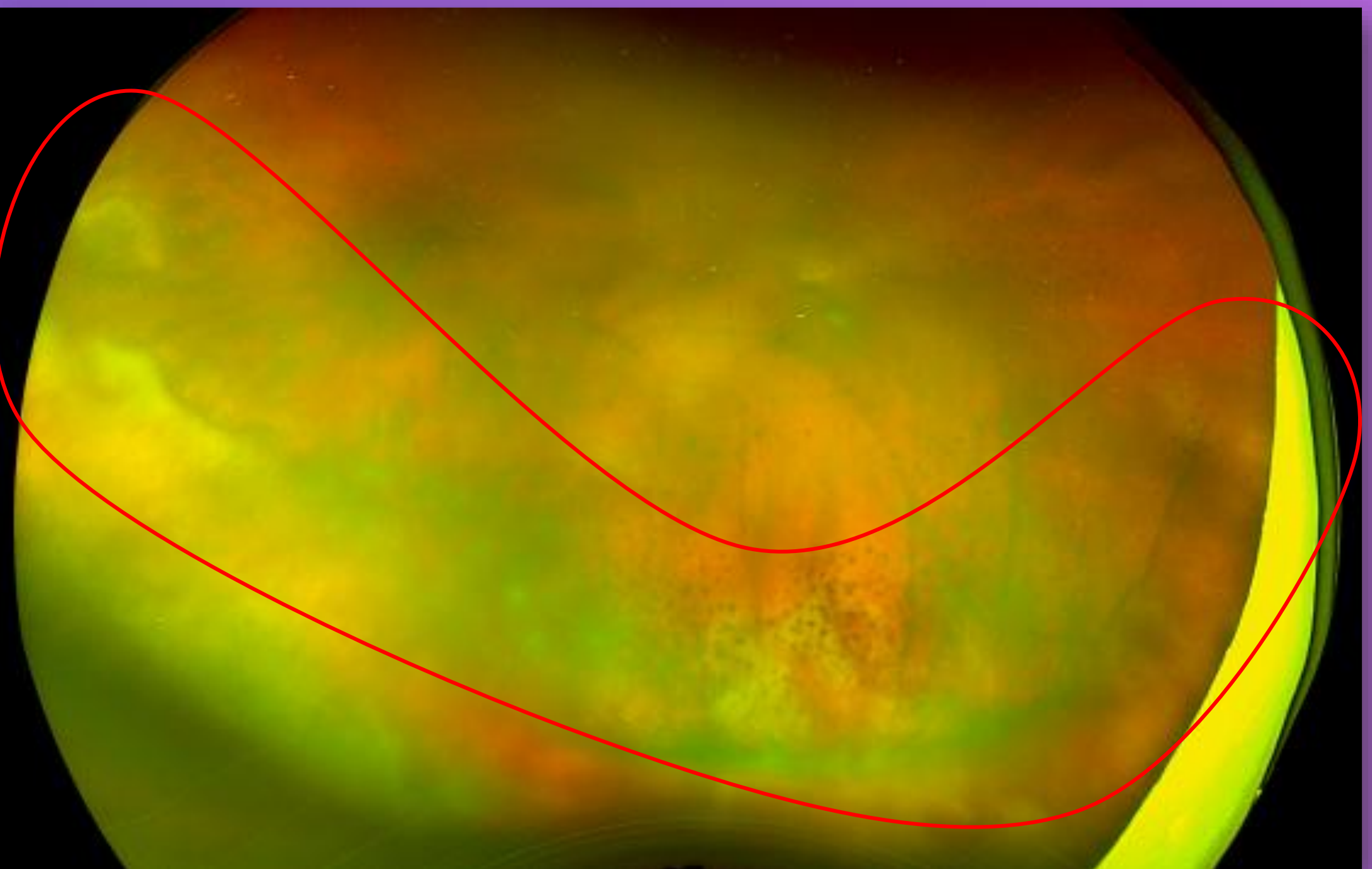


Figure 3. Optos pseudocolour image of the right fundus showing progression (red highlight) despite intravitreal foscarnet and 3 days of high dose valaciclovir.
Figure 4. Transverse section T2-weighted FLAIR MRI image showing patchy signal abnormality in the left internal capsule due to recent infarct.

DISCUSSION

What is Varicella Vasculopathy?

The reactivated varicella virus travels from the trigeminal ganglion along trigeminal axons to reach the cerebral arteries^{1,2}. The virus migrates into vessel walls, provoking an immune reaction and amyloid production. This results in an occlusive cerebral vasculitis which can lead to complications such as ischaemia, infarction or haemorrhage.

How is Varicella Vasculopathy Managed?

The mainstay of acute management is intravenous antiviral treatment for at least 2 weeks e.g. Aciclovir 15mg/kg TDS or Foscarnet 90mg/kg BD. There is an argument for the role of steroid in reducing vascular inflammation e.g. 1 mg/kg from day 1-5 of the antiviral course³. We recommend discussion with Regional Virology services for specific guidance.

Patients with CLL treated with r-bendamustine have lifelong immune suppression which persists even when the disease is in remission⁴. There is no international consensus on the optimal duration of herpesvirus prophylaxis⁵, however long-term prophylaxis extending years is recommended to mitigate the considerable morbidity associated with herpesvirus reactivation in this population⁶.

CONCLUSION

Bilateral herpetic disease implies CNS involvement and requires further investigation.

Herpesvirus reactivation may occur years after treatment for CLL. We recommend lifelong herpesvirus prophylaxis after treatment with r-bendamustine to prevent varicella reactivation.

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