

## Ocular sequelae in a Lassa fever survivor at FMC Owo isolation centre, Ondo State, Nigeria

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### Introduction

Lassa fever is an acute zoonotic, highly contagious, often fatal haemorrhagic fever caused by the Lassa virus, a member of the Arenaviridae family. The disease symptoms vary from mild flu-like illness to severe multi-organ dysfunctions caused by fever, vascular permeability, plasma volume depletion, coagulation abnormalities, and varying degrees of haemorrhage.

### Methods

This is a case report showcasing the ocular manifestation and complication developed by a female undergraduate with Lassa fever, with admitting CT values of 28.56 and 26.87 on the G and L genes, respectively. Clinical presentation includes fever, abdominal pain, and abnormal bleeding from both the vagina and injection sites. She had visual impairment of her left eye, with further investigations revealing a left vitreous haemorrhage with complicated cataract and suspected retinal detachment, and glaucoma of the right eye. She had cataract extraction done, but was still unable to see with her left eye, necessitating her referral for retinal surgery.

### Results

This case illustrates a severe, irreversible ocular complication of Lassa fever, a contrast to the transient conjunctival or anterior segment involvement previously reported.<sup>5</sup> The patient's

vitreous hemorrhage, cataract, and retinal detachment suggest profound vascular and inflammatory damage, possibly mediated by Lassa virus-induced endothelial injury and coagulopathy. This case parallels rare reports of haemorrhagic retinopathy in other viral haemorrhagic fevers like Ebola, implying a shared mechanism of vascular leakage and immune-mediated damage.

### Conclusion

This clinical case lends credence to the ocular manifestations of Lassa fever, with the permanent visual loss seen highlighting the far-reaching ophthalmic complication of Lassa fever. This calls for awareness to ensure early ophthalmological assessment, as well as long-term follow-up of those affected post-recovery. Further studies are needed to explore Lassa virus' ocular tropism, biomarkers of risk, and the role of antivirals and steroids in mitigating inflammation.