

## Atypical ocular bartonellosis: A case report

Kamena Mwana-Yile HASSAN 1\*, Fatima IHBIBANE 1, Mathilde OTSASSO 2, Latifa MARIH 1

1 Infectious Diseases Department, Ibn Rochd University Hospital, Faculty of Medicine and Pharmacy, Hassan II University of Casablanca, Morocco

2 Ophthalmology Department, Ibn Rochd University Hospital, Faculty of Medicine and Pharmacy, Hassan II University of Casablanca, Morocco

Corresponding author: HASSAN KAMENA MWANA YILE, docteurmwanyile@gmail.com

### Introduction

*Bartonella henselae* is a Gram-negative bacillus responsible for causing bartonellosis, commonly known as cat scratch disease, with cats serving as the primary reservoir for the infection. Bartonellosis can present in various clinical forms, ranging from isolated lymphadenopathy to systemic involvement, and occurs in both immunocompetent and immunocompromised individuals. Some rare systemic complications have been documented, including neuroretinitis. We report a case of chorioretinitis caused by *Bartonella henselae* in an immunocompetent patient, which occurred without the presence of papilledema.

### Objective

Report a case of chorioretinitis caused by *Bartonella henselae* in an immunocompetent patient, occurring without papilledema.

### Case presentation

A 27-year-old female patient with a history of multiple cat scratches and no significant comorbidities presented on August 28, 2025, with a gradual decline in visual acuity in her right eye over a period of three weeks. This was associated with cat scratches and a fever of 39°C.

• Eye examinations: Ophthalmological examination, including Optical Coherence Tomography (OCT), revealed serous retinal detachment along with epithelial detachment. Fluorescein angiography showed a hyperfluorescent area in the upper temporal region of the macula, consistent with chorioretinitis. This was noted to have star-shaped macular exudates without any signs of papilledema.

• Biological assessments: The serology for *Bartonella henselae* returned a strong positive result (IgG) in indirect immunofluorescence, with a titer greater than 1/1280, compared to the laboratory reference threshold of 320. Other serology tests, including those for HIV, Toxoplasmosis, rickettsiosis, TPHA/VDRL, CMV, HSV-1 and HSV-2, and EBV, were all negative. The patient's HbA1C was recorded at 5.5%. Serum protein electrophoresis revealed no abnormalities in monoclonal immunoglobulin levels. Lupus tests, including antinuclear antibodies, anti-DNA antibodies, and rheumatoid factors, were all negative.

• Chest ultrasound: revealed no abnormalities, such as vegetations or abscesses, on the heart valves.

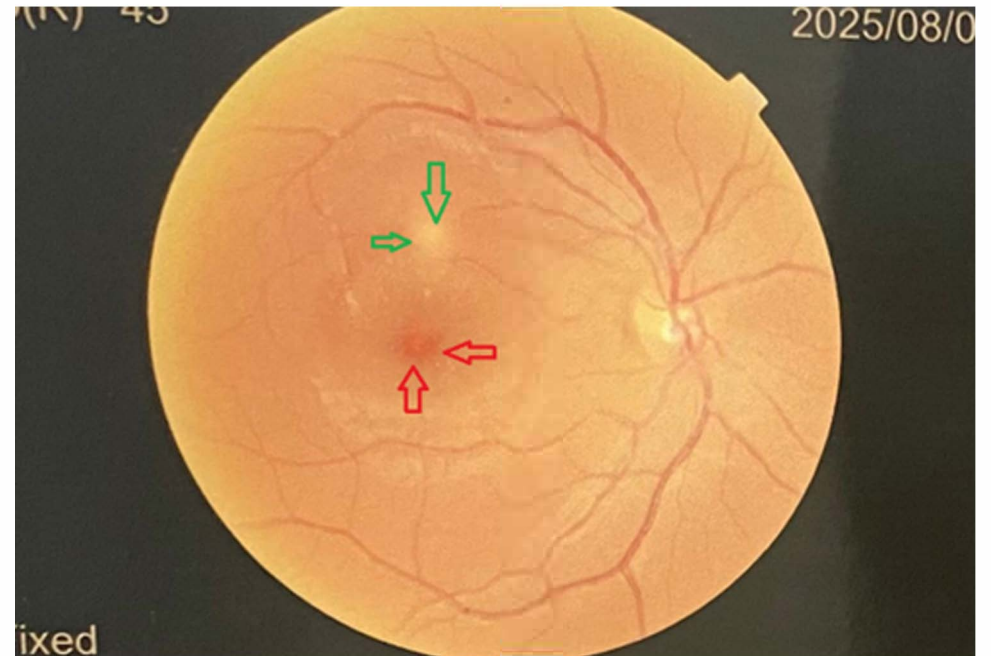
• Treatment: Doxycycline will be administered at a dose of 100 mg every 12 hours, along with rifampicin at a dose of 300 mg every 12 hours. The treatment duration is four weeks. Additionally, corticosteroid therapy will be added at a dose of 1 mg/kg taken orally.

### Discussion

*Bartonella henselae* is the most common cause of ocular bartonellosis in humans. This bacterium is also responsible for neuroretinitis, which involves inflammation of the optic nerve and the surrounding retina. The condition is characterised by optic disc oedema and may lead to the formation of Leber's macular star. Other common manifestations of ocular bartonellosis include Parinaud's oculoglandular syndrome, multifocal retinitis, and retinal artery occlusion. The diagnosis of cat scratch disease or bartonellosis is primarily determined through serological testing, particularly immunofluorescence, which looks for the presence of IgM or an IgG level greater than 1/256. When decreased visual acuity is present alongside chorioretinitis, it is essential to conduct a differential diagnosis to rule out other diseases, such as syphilis, tuberculosis, histoplasmosis, toxoplasmosis, toxocariasis, and leptospirosis.

### Conclusion

Bartonellosis caused by *Bartonella henselae* can rarely cause eye damage in the form of chorioretinitis without papilledema, hence the importance of systematically requesting a Bartonellosis serology test in cases of decreased visual acuity with evidence of a cat scratch.



**Figure 1** : Fluorescein angiography of the right eye reveals a perimacular hyperfluorescent focus in the superior temporal region, indicating chorioretinitis (green arrows) and a macular star appearance (red arrows).

### References

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