World Journal of Advanced Research and Reviews
eISSN: 2581-9615 CODEN (USA): WJARAI
Cross Ref DOI: 10.30574/wjarr
Journal homepage: https://wjarr.com/

(CASE REPORT)

Check for updates

Cat scratch disease: A case report

Chaymae Ahkim *, Rachid Sekhsoukh, Asmae Maadane and Fatima Zahra Mabrouki

Department Ophtalmology, Mohamed First University, Oujda, Morocco.

World Journal of Advanced Research and Reviews, 2026, 30(02), 2680-2683

Publication history: Received on 01 March 2026; revised on 10 April 2026; accepted on 13 April 2026

Article DOI: https://doi.org/10.30574/wjarr.2026.30.2.0901

Abstract

Cat scratch disease, caused by *Bartonella henselae*, is a zoonotic infection that can rarely lead to severe ocular involvement. We report the case of a 27-year-old woman with no significant medical history who presented with a rapid decrease in visual acuity in the right eye following close contact with cats. Ophthalmologic examination revealed a visual acuity of 1/10 in the right eye and 9/10 in the left eye, with a star-shaped maculopathy and a superior paramacular retinal lesion. Optical coherence tomography (OCT) showed cystoid macular edema associated with serous retinal detachment, while fluorescein angiography revealed a late hyperfluorescent retinal focus with stellate exudates. Serology for *Bartonella henselae* was positive with high IgG titers, confirming the diagnosis. The patient was treated with doxycycline and rifampicin combined with a tapering oral corticosteroid regimen for six weeks, resulting in an improvement of visual acuity to 7/10 at 45 days of follow-up. This case highlights the importance of considering cat scratch disease in the differential diagnosis of macular and retinal lesions and demonstrates the effectiveness of combined antibiotic and corticosteroid therapy.

Keywords: Cat scratch disease; *Bartonella henselae*; Star-shaped maculopathy

1. Introduction

Cat scratch disease is a bacterial zoonosis caused by *Bartonella henselae*, transmitted to humans primarily through cat scratches or bites. It classically presents with regional lymphadenopathy preceded by a cutaneous lesion at the inoculation site, most often in children and young adults [1,2]. However, atypical forms have recently been reported, including ocular, neurological, and systemic involvement, which can pose diagnostic challenges [3,4]. Thus, although generally benign, this infection remains relevant and requires early recognition for appropriate management.

2. Materials and Methods

We report the case of a 27-year-old female patient with no significant medical history, who reported close contact with cats. She presented with a rapidly progressive decrease in visual acuity in the right eye.

Ophthalmologic examination revealed a visual acuity of 1/10 in the right eye and 9/10 in the left eye. Fundus examination of the right eye showed a stellate maculopathy associated with a retinal lesion located in the superior paramacular region (Figure 1), while the left eye was unremarkable.

* Corresponding author: Ahkim Chaymae

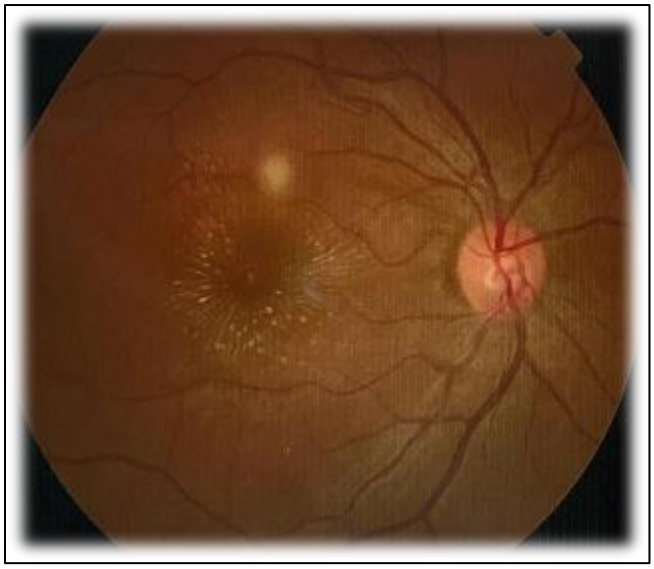

Figure 1 Fundus of the eye showing a stellate maculopathy

OCT revealed cystoid macular edema associated with a serous retinal detachment (Figure 2). Fluorescein angiography showed a hyperfluorescent retinal lesion in the late phases, associated with stellate exudates (Figure 3).

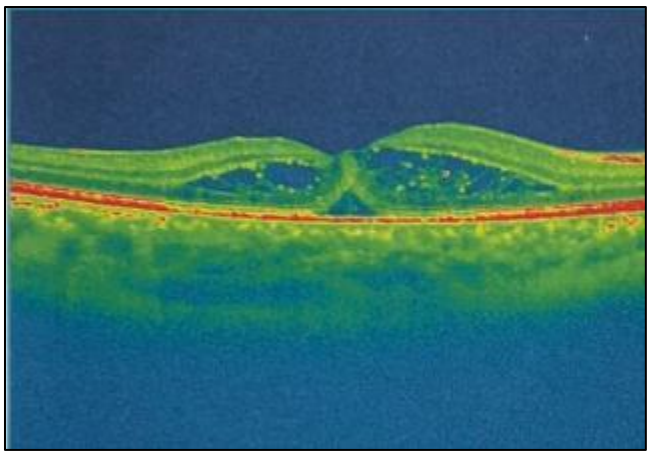

Figure 2 OCT showing cystoid macular edema associated with serous retinal detachment

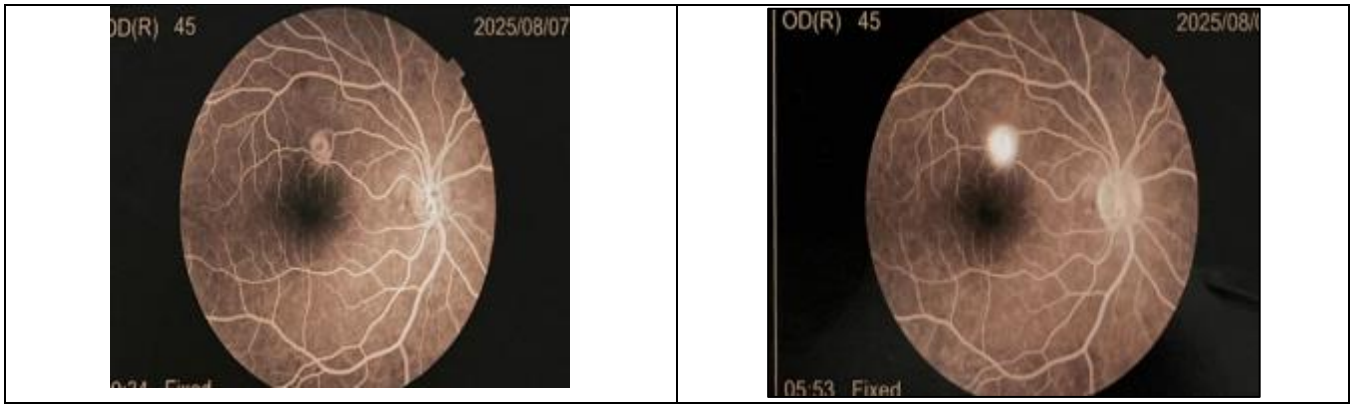

Figure 3 Fluorescein angiography showing a hyperfluorescent retinal lesion in the late phases, associated with stellate exudates

The etiological work-up revealed a positive serology for *Bartonella henselae* with markedly elevated IgG, confirming the diagnosis of cat scratch disease.

The patient was treated with doxycycline (200 mg/day) combined with rifampicin (300 mg twice daily) and a tapering course of oral corticosteroids for a total duration of six weeks.

The outcome was favorable, with visual acuity improving to 7/10 at the 45th day of follow-up, and resolution of macular edema and serous retinal detachment on follow-up OCT (Figure 4).

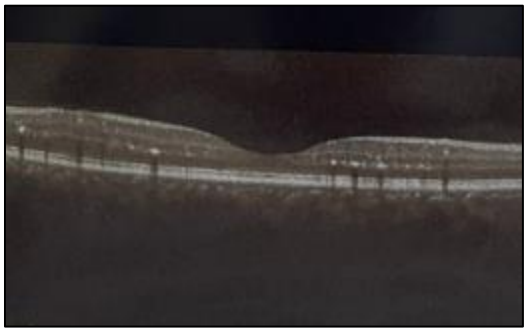

Figure 4 Macular OCT showing resolution of macular edema and serous retinal detachment.

3. Results and Discussion

Cat scratch disease (CSD), caused by the bacterium *Bartonella henselae*, is a common zoonosis primarily affecting children and young adults exposed to cats, especially kittens. The disease is usually benign, but its clinical spectrum can vary, ranging from simple skin lesions and regional lymphadenopathy to rare but severe systemic forms [5,6].

In most cases, following a scratch or bite from an infected cat, *B. henselae* penetrates the skin and triggers a local immune response, leading to regional lymphadenopathy, sometimes associated with nonspecific constitutional symptoms such as mild fever and fatigue. These manifestations constitute the classic clinical picture and often resolve spontaneously within a few weeks in immunocompetent patients [5,7].

However, CSD can present with extracutaneous manifestations. Clinical studies and case reports have described ocular involvement, such as Parinaud's oculoglandular syndrome, neurological complications (encephalopathy, seizures), bone infections (osteomyelitis), as well as hepatosplenic or cardiac forms [6,8]. Although rare, these atypical presentations are important, as they can prolong the disease, often require more extensive diagnostic investigations, and justify targeted antibiotic therapy [8,9].

Diagnosis relies on patient history (exposure to cats, especially kittens), clinical examination of lymph nodes, and identification of an inoculation lesion. Complementary tests include specific serology and PCR, while culture of *B. henselae* remains difficult and impractical in routine practice [5,6].

Regarding management, immunocompetent patients with the classic form can often be managed conservatively (rest and analgesics), as spontaneous resolution is common [7]. Severe or complicated forms warrant the use of antibiotics such as azithromycin or doxycycline, particularly in immunocompromised patients or when the disease persists [9]. The absence of universal guidelines on the choice and duration of antibiotics requires an individualized approach.

Prevention relies on simple measures: avoiding scratches and bites, washing immediately after injury, and maintaining effective parasite control in cats to limit *B. henselae* carriage [5,6]. These measures are especially important for at-risk populations, including children and immunocompromised individuals.

In conclusion, although CSD is generally benign, its ability to cause varied clinical manifestations justifies diagnostic vigilance. Early recognition of atypical forms helps guide management, avoid unnecessary investigations, and reduce potential complications [5,9].

4. Conclusion

Cat scratch disease is a common zoonotic infection, usually benign, presenting with regional lymphadenopathy and mild systemic symptoms. Although the disease course is generally favorable in immunocompetent patients, atypical or systemic forms can occur and may require appropriate management, including targeted antibiotic therapy. Clinical vigilance, detailed patient history, and early diagnosis remain essential to distinguish this infection from other causes of lymphadenopathy and to minimize potential complications. Simple preventive measures, such as hygiene after scratches and parasite control in cats, remain the main strategies to reduce the risk of infection.

Compliance with ethical standards

Acknowledgments

We sincerely thank the Ophthalmology Department and the biological diagnostic team for their valuable assistance in the management of this patient.

Disclosure of conflict of interest

The authors declare no conflicts of interest.

Statement of ethical approval

Ethical approval is not required for this case report according to the institutional policy.

Statement of informed consent

Informed consent was obtained from the patient of this case report and accompanying images.

References

[1] Florin, T. A., Zaoutis, T. E., Zaoutis, L. B. (2008). Beyond cat scratch disease: Widening spectrum of *Bartonella henselae* infection. *Pediatrics, 121*(5), e1413–e1425.

[2] Nelson, C. A., Saha, S., Mead, P. S. (2016). Cat-scratch disease in the United States, 2005–2013. *Emerging Infectious Diseases, 22*(10), 1741–1746.

[3] Prutsky, G., Domecq, J. P., Mori, L., et al. (2013). Treatment outcomes of human bartonellosis: A systematic review. *International Journal of Infectious Diseases, 17*(10), e811–e819.

[4] Margileth, A. M. (2020). Recent advances in diagnosis and treatment of cat scratch disease. *Current Infectious Disease Reports, 22*(11), 1–8.

[5] Centers for Disease Control and Prevention. (2024). About *Bartonella henselae* (Cat Scratch Disease). https://www.cdc.gov

[6] MSD Manuals. (2025). Cat Scratch Disease. https://www.msdmanuals.com

[7] Zangwill, K. M., Hamilton, D. H., Perkins, B. A., et al. (1993). Cat-scratch disease in the United States: Results of a national registry. *American Journal of Diseases of Children, 147*(9), 1123–1128.

[8] Revue de Médecine Interne. (2009). Manifestations neurologiques et systémiques de la maladie de la griffe du chat, *30*(6), 502–507.

[9] Bergmans, A. M., Renders, N. H., Schaftenaar, E., et al. (1997). Clinical and epidemiologic aspects of *Bartonella henselae* infection in humans. *Emerging Infectious Diseases, 3*(1), 59–66