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Case Report

Bilateral Peripheral Retinal Vasculitis in a Young Patient: A Case Report

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ABSTRACT

Bilateral peripheral retinal vasculitis is an inflammatory condition that affects the peripheral blood vessels of the retina in both eyes. This inflammation can lead to severe complications, such as hemorrhages, vascular occlusions and significant visual acuity loss. The causes are varied, including autoimmune diseases, systemic infections and idiopathic conditions. Early diagnosis and appropriate treatment are essential to prevent permanent vision damage.

Keywords: Vasculitis; Bilateral; Angiography; Neovascularization

Introduction

Bilateral peripheral retinal vasculitis is an inflammation of the peripheral blood vessels of the retina that affects both eyes[1-3]. This condition may be associated with various etiologies, including autoimmune diseases, infections and idiopathic causes. Clinically, patients may present with symptoms such as blurred vision, floaters and photopsias[4]. Diagnosis is challenging and requires a multidisciplinary approach, involving imaging tests such as fluorescein angiography and laboratory tests to identify potential systemic causes[5]. Treatment depends on the underlying etiology and may include corticosteroids, immunosuppressants and targeted therapies for associated diseases[6]. Early identification and proper management are crucial to prevent complications such as retinal hemorrhages, vascular occlusions and permanent vision loss[7].

Objective

To present a case of bilateral peripheral retinal vasculitis in a young patient, highlighting the diagnostic and therapeutic complexity of this condition.

Materials and Methods

Data for this study were obtained through a review of the patient's electronic medical records. A literature review was conducted using the PUBMED and ScienceDirect databases.

Case Report

A 25-year-old obese woman presented with sudden visual blurring in the left eye (LE). Corrected visual acuity was 20/20 in the right eye (RE) and 20/50 in the LE, with a refraction of -5.00 spherical in both eyes (BE). Biomicroscopy revealed fine keratic precipitates and +1/+4 cells in the LE, with intraocular pressure of 12 mmHg in BE. Additionally, mild vitreous hemorrhage and superior temporal neovascularization were observed. Angiography **(Figure 4)** showed capillaritis, peripheral vascular remodeling and 360° non-perfusion in BE. There was leakage in areas of superior temporal retinal neovascularization in the LE. Complementary tests revealed a positive IGRA and a strongly reactive PPD. The patient was treated with a RIPE regimen for two months, followed by RI for four months, along with oral corticosteroids with gradual regression. Anti-VEGF therapy was administered in the LE to control neovascularization, resulting in visual improvement and absence of neovascularization. Retinal photocoagulation was performed in ischemic areas of both eyes. Follow-up angiography demonstrated persistence of peripheral vasculitis. A new clinical evaluation was requested to discuss pharmacological immunosuppression **(Figures 1-8)**.

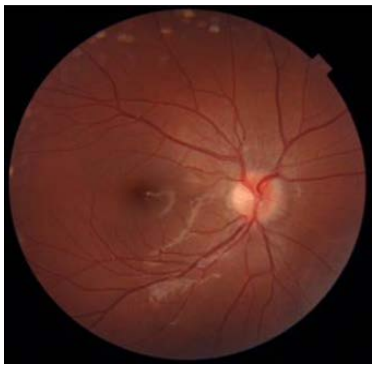


Figure 1: Right eye fundus: Normal appearance.

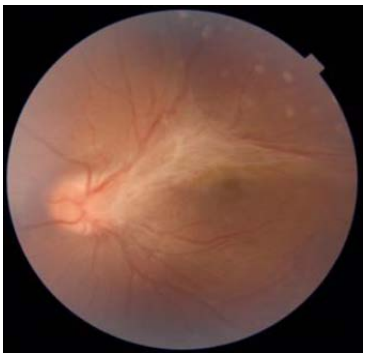


Figure 2: Left eye fundus: Epiretinal gliosis along the superior vascular arcade, vascular tortuosity.

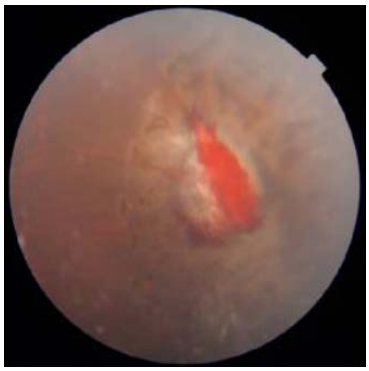


Figure 3: Left eye fundus: Leakage in superior temporal neovascularization.

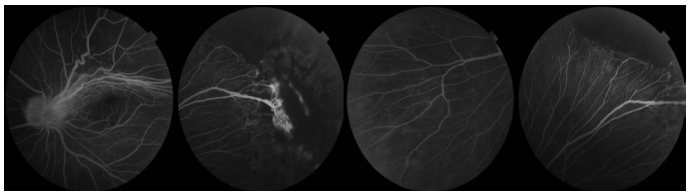


Figure 4: Angiography: Capillaritis, peripheral vascular remodeling and 360º non-perfusion.

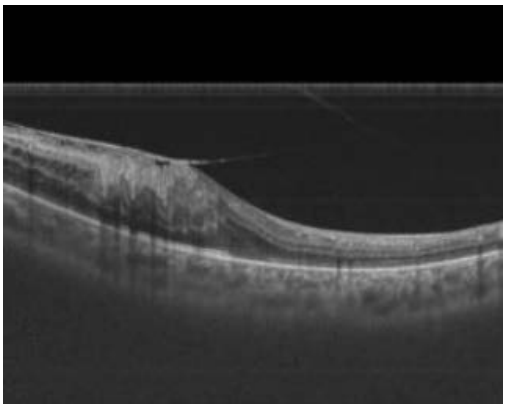


Figure 5: Vitreoretinal interface traction, with edema and disruption of superior retinal layers near the macula.

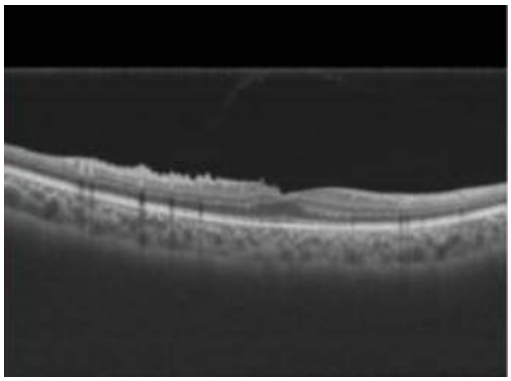
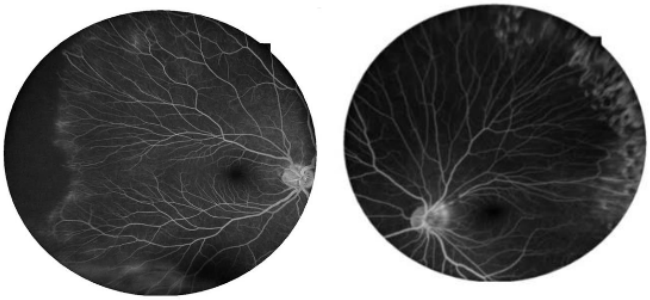


Figure 6: Post-anti-VEGF OCT: Spontaneous improvement in vitreoretinal interface traction, with macular structure improvement.



Figures 7 and 8: Angiography: Vasculitis and increased temporal ischemia in the right eye. Superior vasculitis areas in the left eye.

Discussion

This case underscores the importance of differentiating between primary and secondary vasculitis, emphasizing the need for a multidisciplinary approach to diagnosis and management[8-10]. The persistence of vasculitis **(Figure 7 and 8)** after antibiotic treatment for tuberculosis suggests other potential etiologies, such as Eales disease, autoimmune, infectious, systemic, genetic or hematological conditions[11,12]. Collaboration among specialists is essential for an accurate diagnosis and effective treatment plan[13,14].

Conclusion

This case report highlights the challenges in diagnosing and treating peripheral retinal vasculitis, emphasizing the importance of multidisciplinary evaluation in diseases with similar findings, considering the endemic nature of tuberculosis in Brazil.

Ethical Statement

Informed consent has been provided by the patient for publication of this case report.

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