



Case Report

Hemiretinal arteriovenous occlusion in Crohn's disease: A case report.

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Abstract

Only few cases of retinal vascular accidents in association with Crohn disease (CD) have been reported. To the best of our knowledge this one of the first cases of unilateral arteriovenous hemiretinal occlusion in CD. This complication is sight-threatening and needs immediate appropriate diagnosis and treatment. We herein describe a case of Crohn's disease presenting with hemi-retinal arteriovenous occlusion.

Keywords

Crohn's disease; vasculitis; artery; vein; occlusion.

Introduction

Crohn's disease (CD) is a multisystemic inflammatory disorder. Conjunctivitis, episcleritis, keratitis, iritis and uveitis are the most common manifestations occurring in more than 10 % of cases [1,2].

Posterior segment is rarely involved (<1% of cases). We herein describe a new case of hemiretinal arteriovenous occlusion. The aim of this report was to rule out cause-to- effect relationship with the systemic disorders of CD.

Observation

A 48-year-old female with long CD history presented with headache and left eye blurred vision for seven weeks. The patient was undergoing immunosuppressive treatment for 10 years and had no previous ocular complaints.

Physical examination found best corrected visual acuity of 20/20 (Snellen) in the right eye and 20/50 in the left.

Results of pupillary and motility examination were within normal in both eyes. In the right eye, ophthalmoscopic examination showed no abnormalities. In the left eye, slit-lamp examination identified corneal precipitates and cells in the anterior chamber.

Fundus examination found numerous vitreous cells, extensive vascular sheathing involving the arteries and the veins in the inferior part of the retina, extensive blot hemorrhages scattered in the distribution of the inferotemporal vein and retinal whitening between hemorrhage areas. Fluorescein Angiography of the left eye was performed and confirmed hemiretinal arteriovenous occlusion, leakage of the inferior vessel walls and capillary dropout responsible for masking effect in the ischemic area with no objective neovascularization(Figure 1). On the right side the, the fluorescein angiography was normal.

The Optical Coherence Tomography (OCT) of the left eye showed high reflectivity of the inner retinal layers and central foveolar cysts associated to few exudates (Figure 2). The OCT of the right eye was unremarkable.

Left OCT-Angiography (OCT-A) showed an enlargement of the central avascular zone with rarefaction of the superficial capillary plexus. OCT-A of the right eye was normal (Figure 3). Screening for coagulopathy, autoimmune disorders and tuberculosis was negative. Patient was treated by intravenous corticosteroids and laser photocoagulation with satisfactory digestive and ocular evolution.

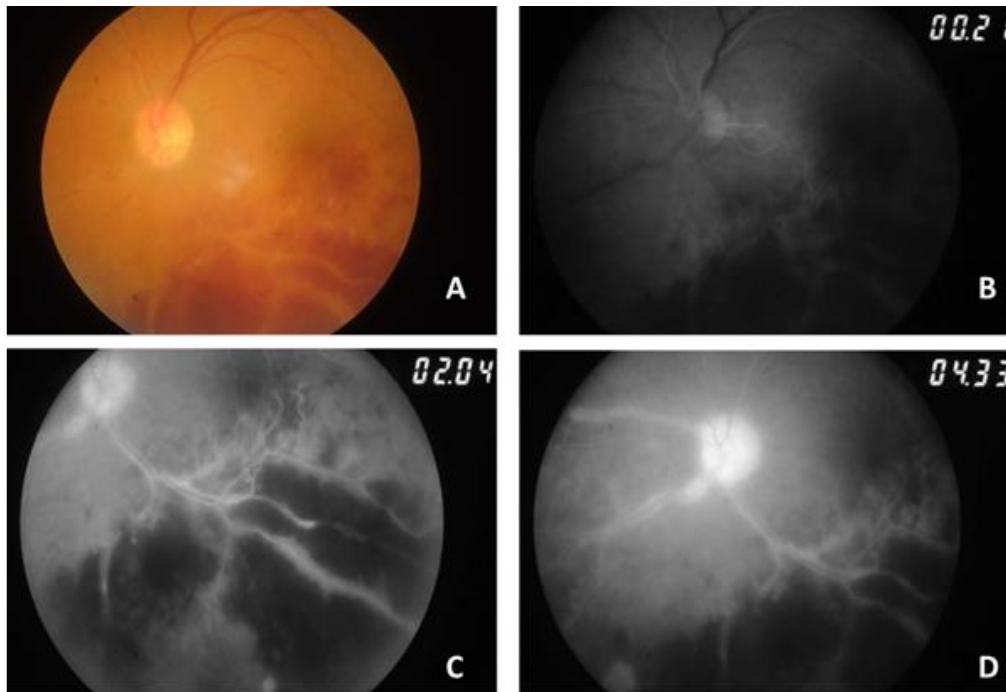


Figure 1: Initial presentation of a 48-year-old woman with hemiretinal arteriovenous occlusion in the left eye associated with Crohn's disease. A. Fundus photo showing extensive vascular sheathing involving the arteries and the veins in the inferior area of the retina, extensive blot hemorrhages scattered in the distribution of the inferotemporal vein and retinal whitening between hemorrhage areas. B. Early phase fluorescein angiography showing delayed inferior arterial filling. C. Mid phase fluorescein angiography showing blocking (masking effect) in the inferior area of the retina, leakage of the inferior vessel walls and capillary dropout. D. Late phase fluorescein angiography showing papillary hyperfluorescence.

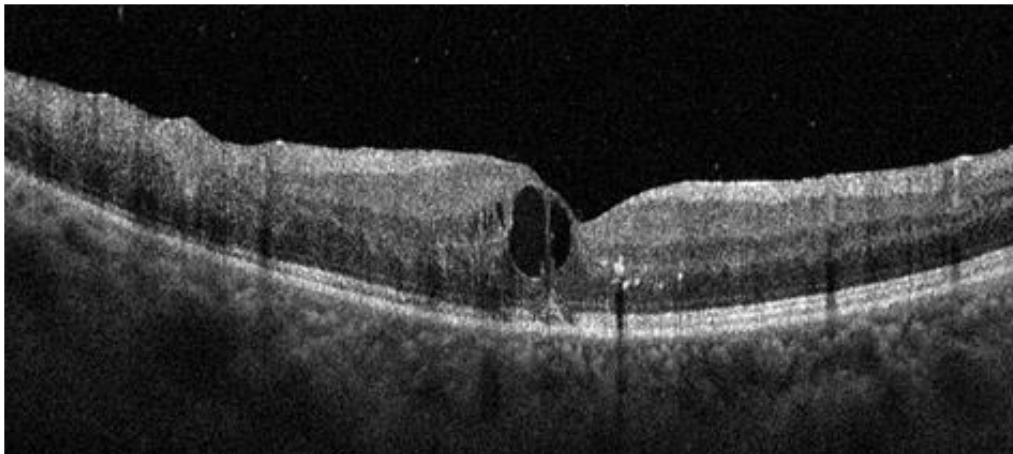


Figure 2: Optical Coherence Tomography (OCT) of the left eye; showing Centro-foveolar cysts, a few exudates with high reflectivity of the inner retinal layers

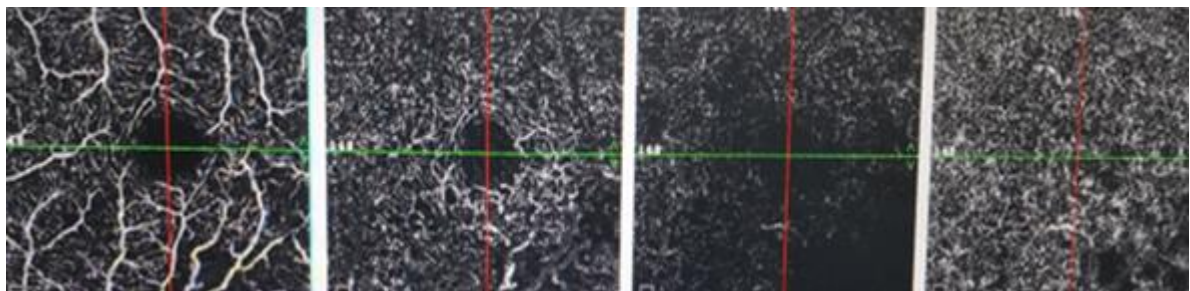


Figure3: Optical Coherence Tomography-Angiography (OCT-A) of the left eye; showing an enlargement of the central avascular zone with a rarefaction of the superficial capillary plexus.

Discussion

Crohn's disease (CD) is a chronic immune-mediated disease characterized by inflammatory lesions that may involve retinal microcirculation [1]. About 5 to 10% of affected patients present with ocular complications of both the anterior and posterior segments of the eye [2]. Crohn disease occlusive vasculopathy is known to be risk factor of thromboembolic accidents [3]. severity of the retinal vasculopathy might be correlated to the activity of Crohn disease and is no more considered as collateral effect of systemic inflammatory changes. Blood vessel wall disruption due to the combination of focal arteritic submucosal inflammatory cells infiltration precipitates vision troubles [4]. Few reports of retinal central vein or artery occlusion were published. Most of the described Lesions were bilateral. Unilateral arteriovenous occlusion is a very rare finding. Systemic steroid and immunosuppressive agents are the consensual treatment of the sight threatening entity[5].

Conflict of Interest: None

References

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