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Case Report Open Access

A Rare Ocular Manifestation of Crohn's Disease

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Introduction

Extra-intestinal manifestations (EIM) of inflammatory bowel disease (IBD) are common in both Crohn's disease and ulcerative colitis, occurring in 25-40% of patients with confirmed diagnosis [1]. Ocular complications may occur in up to 10% of cases most of which are nonspecific; however, in some patients significant ocular morbidity has been reported [2].

As most other EIM's of IBD, uveitis may be the presenting symptom during active bowel disease, dormant periods, or may precede the diagnoses of IBD. Common presenting symptoms include pain, photophobia, and blurred vision. On exam, patients usually have diminishing visual acuity (VA), hyperemia, perikeratic injection, exudates in the anterior chamber, keratic precipitates, and iris involvement [3]. As such, clinical suspicion should be high when managing a patient who presents with such symptoms, regardless of an official diagnosis of IBD. Furthermore, Roth spots have not traditionally been associated with IBD [4].

To our knowledge, coexisting hyperacute, sever bilateral panuveitis and Roth's spots are atypical presentations of Crohn's disease.

A 17 year-old male presented to the clinic with bilateral red eyes, photophobia, and blurriness. Patient's history revealed a 5-day account of fever, chills, nausea, vomiting, and diarrhea. He also had a history of multiple sexual partners. He did not have any history of travel or sick contacts. His family history was unremarkable. His examination revealed VA of 20/70-2 OU and intraocular pressures of 9 mmHg OU. He had extensive subconjunctival hemorrhage bilaterally. Descemet folds and significant vitritis were noted (Figure 1). Fundoscopic examination demonstrated a cup to disc ratio of 0.1, flat retina with no lesions and +3 vitreous cells OU. He was then started on Pred Forte q1 hour, Homatropine 5% TID and uveitic work-up was initiated. Two days later, his VA was 20/100 OD, 20/60 OS. Roth's spots (Figure 2), vitreous opacities, and bilateral optic nerve head edema were noted on fundus exam. He was admitted to the hospital and investigated for possible endocarditis and an echocardiogram was ordered. Investigation

Figure 1: Inflammatory cells seen in vitreous chamber (OS).

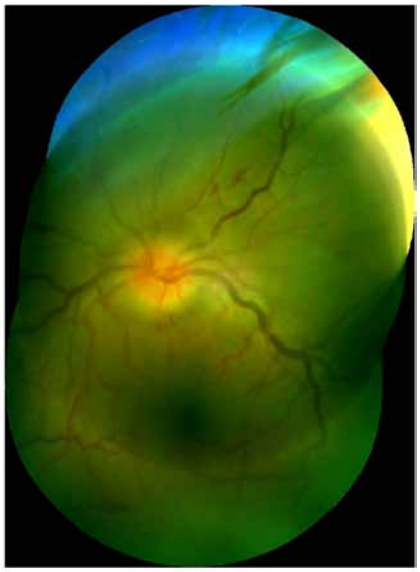

Figure 2: Roth spot (OD).

results for sarcoidosis, syphilis, tuberculosis, toxoplasmosis, herpetic and connective tissue diseases were all negative. The results of the echocardiogram was normal. Five days later, he developed numerous aphthous ulcers on his buccal mucosa. Arrangement for a colonoscopy and gastroscopy were made. Results showed evidence of an edemetaous mucosa and numerous aphthous in the gastrointestinal tract. The pathological reports revealed areas of varying inflammation, which confirmed the diagnosis of Crohn's disease. Patient was then started on oral Prednisone 40 mg, which was tapered over 5 weeks. By the end of June 2011, his VA returned to 20/20, retinal hemorrhages and optic nerve head edema resolved and his other signs of panuveitis improved significantly.

Discussion

Although panuveitis has been reported as a secondary complication of IBD, it is difficult to understand the reasoning behind the presence of Roth's spots. Considering its pathophysiology, there may be some underlying hemorrhage due to ruptured capillaries, and the subsequent formation of a fibrin thrombus. Roth's spots have been reported in

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subacute bacterial endocarditis, leukemia, and vascular events; it has not, however, been reported in IBD.

Conclusion

Even though the association of ocular disorders with IBD have been well documented in the literature, the variable spectrum of ocular manifestations make the diagnosis challenging. Our patient had diffuse inflammatory disease in the setting of hyperacute, severe bilateral panuveitis along with Roth's spots. Our experience, supported by a review of the literature, suggests that our patient's presentation was atypical.

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