

Sympathetic ophthalmia following postoperative endophthalmitis and evisceration

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Abstract

Purpose: To report a case of sympathetic ophthalmia (SO) following purulent postoperative endophthalmitis and final evisceration of the affected eye.

Methods-Results: A 64-year-old male underwent phacoemulsification complicated by endophthalmitis. Five months latter the eye was painful and had no light perception so an evisceration was performed. Two weeks latter granulomatous posterior uveitis developed in the fellow eye. SO was diagnosed and the patient was started on prednisone and cyclosporine. The inflammation subsided and visual acuity improved to 20/30.

Conclusions: Bacterial endophthalmitis cannot prevent the development of SO. Prompt diagnosis and management is the most important factor for visual prognosis. Hippokratia 2010; 14 (2): 131-132

Keywords: sympathetic ophthalmia; postsurgical endophthalmitis; immunomodulation; evisceration; enucleation

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Purulent eye infection was believed to destroy the uveal tissue and antigen to such an extent that such eyes do not incite sympathetic ophthalmia (SO)^{1,2}. Few case reports have described the existence of endophthalmitis in eyes with sympathetic ophthalmia^{3,4}. Moreover, the risk of SO after evisceration, as compared with enucleation, remains a highly polarized and inconclusive subject⁵.

We present a rare case of SO following a postsurgical endophthalmitis and final evisceration of the fellow eye.

Methods – Results

A 64-year old male was examined at our setting com-

plaining of vitreous floaters and decreased vision in the right eye, for the past 2 weeks. Dilated fundus examination disclosed +2 inflammatory cells and multiple areas of whitish foci scattered throughout the posterior pole, most prominent in the red-free photo (Figure 1 A-B).

Fluorescein and indocyanine green angiogram showed multiple areas of hypofluorescence in the posterior pole (Figure 2). The patient had undergone phacoemulsification on his left eye six months ago in a different hospital setting. One week after the procedure he developed postsurgical endophthalmitis for which he underwent pars-plana vitrectomy but 5 months later the eye had no light

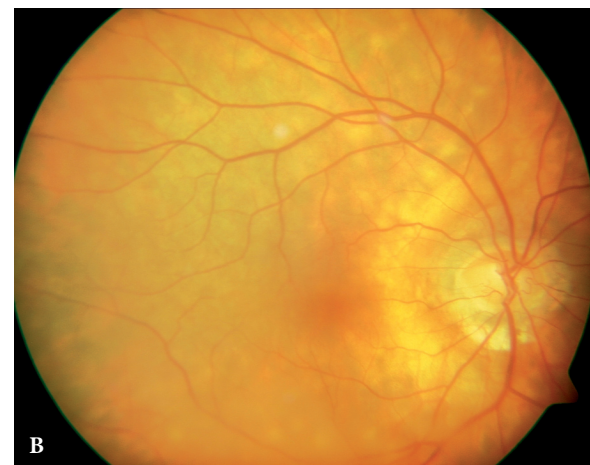
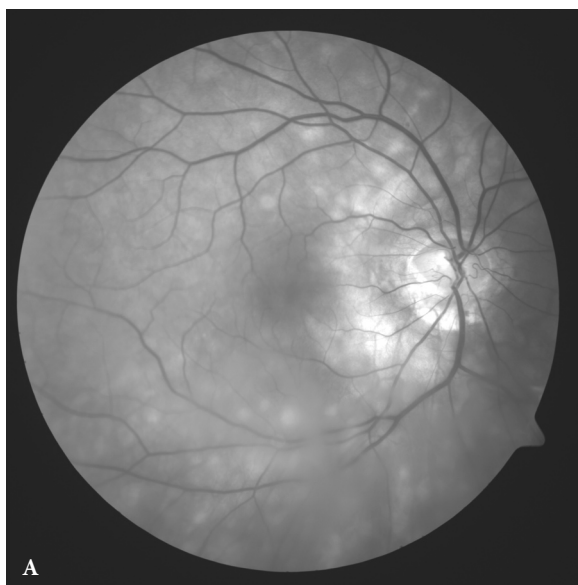


Figure 1A-B: Colour fundus and red-free photo of the affected eye at presentation. The presence of vitreous haze makes difficult the appreciation of inflammatory nodules.

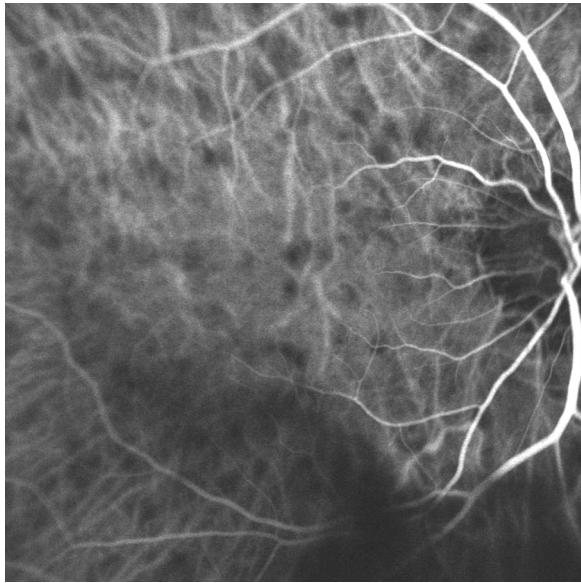


Figure 2: Indocyanine green angiography of the fundus. Note the hypofluorescence corresponding to the inflammatory nodules.

perception and was painful. A CT scan showed infectious infiltration of the retrobulbar tissue, implicating most probably scleral melting and adjacent tissue infiltration. An evisceration was performed and 2 weeks after the evisceration procedure, symptoms began in the fellow eye. Based on the previous ocular history, the clinical and angiographic findings, SO was diagnosed and the patient was started immediately on oral prednisone and cyclosporine as long term steroid sparing agent. On his most recent follow-up, one year after the first attack of uveitis, the patient is on 300 mg daily cyclosporine and his visual acuity is 20/30.

Discussion

The eye is an organ that is considered immunologically privileged because of its lack of a well-developed

lymphatic drainage system and its unique pattern of immunoprocessing.

Our patient developed SO, almost 6 months after the initial cataract surgery and 2 weeks after the evisceration procedure. In our case, the SO was triggered by 2 factors: 1. The postsurgical endophthalmitis; the latter can be a cause of SO⁴, especially when failure of inflammation control results in globe perforation, as was in our case, where the CT scan showed infiltration of the retrobulbar space 5 months after the initial onset of symptoms, and 2. The evisceration procedure: rare case reports have demonstrated development of SO in the fellow eye following evisceration. The fact is that in these cases, the eye has already suffered an injury or surgery, and so it is impossible to determine definitely if the injury or the evisceration is the trigger factor for SO. An increasing number of surgeons choose to perform evisceration, because of its superior long-term cosmetic outcome and faster recovery compared to enucleation. Although the risk of sympathetic ophthalmia is low, patients should be informed of the risks and benefits in these types of excisional surgery.

Immunosuppressive therapy is necessary to achieve a good final visual acuity in eyes affected by SO. However, no controlled randomized studies have been published to date to reveal which treatment is the most effective in patients with SO.

There is no conflict of interest

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