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Endogenous endophthalmitis and Horner's syndrome secondary to brain abscess in HIV patient

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ABSTRACT

A 39-year-old Malay gentleman was presented with sudden onset of blurring of vision, associated with pain, redness and partial ptosis in the left eye (LE) for 2 weeks. It was also associated with headache and drowsiness that were progressively worsened. On examination, the vision was hand movement LE. There was partial upper lid ptosis with injected conjunctiva and mild anterior chamber reaction. The view of the posterior segment was hazy on LE. The right eye was essentially normal. On investigation, B-scan ultrasound was suggestive of LE vitreous opacity. CT scan and MRI of the orbit and brain showed multiple enhancing brain lesions. Toxoplasma IgG, anti-HCV and anti-HIV were reactive and the patient was treated with toxoplasma infection.

1. Introduction

Endophthalmitis is defined as any inflammation of the internal ocular spaces, but in clinical practice it is usually taken to mean inflammation secondary to intraocular infection. Although rare, endophthalmitis is a potentially devastating intraocular infection resulting in a poor visual prognosis for the majority of patients^[1,2].

Endophthalmitis can be classified as either endogenous or exogenous, depending on the route of infection^[3].

Endogenous endophthalmitis is defined as an intraocular infection resulting from hematogenous spread. It is relatively rare, accounting for 2 to 8 percent of all cases of endophthalmitis, and is associated with immunocompromised states, debilitating diseases and invasive procedures^[4].

2. Case report

A 39-year-old Malay gentleman was presented with sudden onset of blurring of vision, associated with pain, redness and partial ptosis in the left eye (LE) for 2 weeks. It was also associated with headache and drowsiness that were

started few days before eye symptoms and progressively worsened.

On examination, the vision was hand movement LE. There was partial upper lid ptosis with injected conjunctiva and mild anterior chamber (AC) reaction (Figure 1). The view of the posterior segment was hazy on LE. The RE was essentially normal.

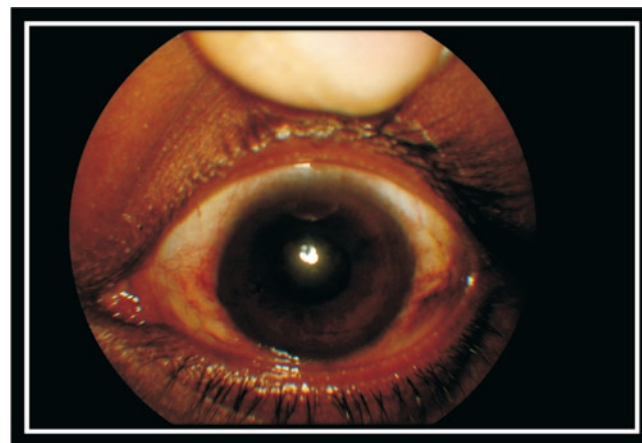


Figure 1. Partial upper lid ptosis with injected conjunctiva and mild AC reaction.

On systemic elaborate examination, LE Horner's syndrome was noted. Other cranial nerves were normal.

On investigation, B-scan ultrasound findings of the globe were suggestive of LE vitreous opacity (Figure 2).

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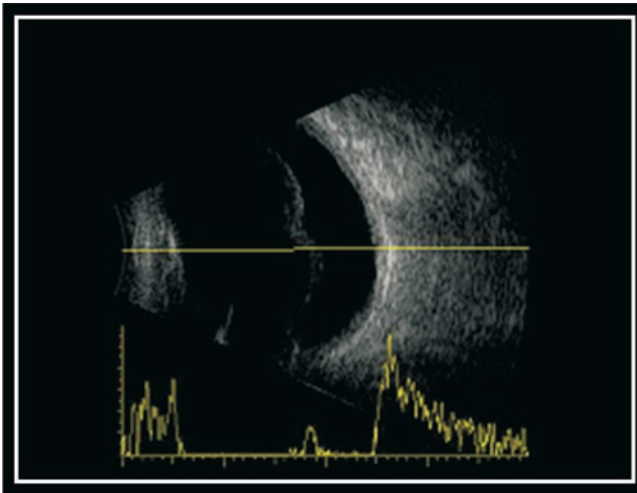


Figure 2. B-scan ultrasound findings of the globe were suggestive of LE vitreous opacity.

CT scan and MRI of the orbit and brain showed multiple enhancing brain lesions which were likely to be infective in origin (Figure 3).

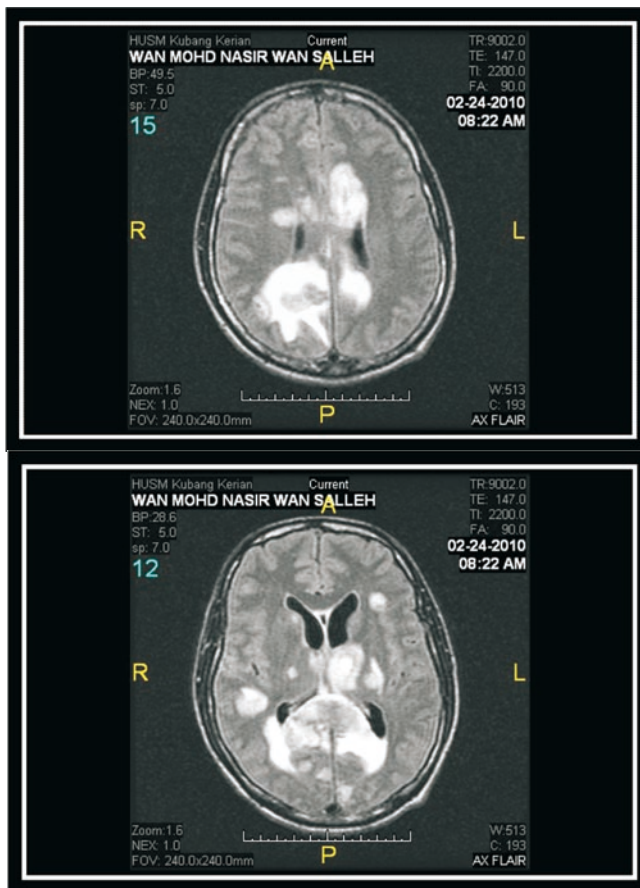


Figure 3. Multiple enhancing brain lesions which were likely to be infective in origin.

Anti-HIV and anti-HCV were reactive and toxoplasma IgG was detected in blood.

The patient was diagnosed as endogenous endophthalmitis and Horner's syndrome secondary to brain abscess and first treated with ceftriaxone (IV), metronidazole (IV) and cloxacillin (IV). After taking brain MRI and the result of IgG toxoplasma came out, patient was treated with clindamycin (IV) and Fansidar (Tab) and topical eye drugs: ciloxan (Gutt) and homatropine (Gutt).

3. Discussion

In immunological tests the IgG toxoplasma avidity, less than 50%, was considered active in non pregnant women^[5]. Based on clinical features and MRI finding, the patient was treated as toxoplasma infection even though immunological test (ELISA), showed high avidity of IgG toxoplasma (64%). Most patients with endogenous endophthalmitis have underlying medical conditions that may be undiagnosed at initial presentation^[6,7], such as immunocompromised conditions that should mention in this case with anti-HIV reactive test.

A high degree of suspicion is necessary to make an early diagnosis of endogenous endophthalmitis. Endogenous endophthalmitis can be secondary to hematogenous spread from any sources^[8] and it should be confirmed by vitreous culture^[9]. We treated the patient as a case of endogenous endophthalmitis secondary to brain abscess without vitreous culture.

Routine radiographs may reveal a primary pulmonary infection^[10]. Echocardiography is also warranted to assess the possibility of endocarditis^[1].

In conclusion, the present case highlights the importance of early diagnosis of underlying disease.

Conflict of interest statement

We declare that we have no conflict of interest.

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