Two Cases of Retinal Vasculitis in Ocular Tuberculosis Involving Different Parts of the Vascular System

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ABSTRAK

Dua laporan kes vaskulitis retina pada tuberkulosis okular presumptif dibentangkan. Kes 1 ialah seorang wanita Melayu berumur 26 tahun yang mengadu flebitis dengan lesi koroid. Kes 2 ialah seorang wanita Melayu berumur 27 tahun yang mengadu sakit arteritis oklusif. Kedua-dua pesakit menunjukkan ujian Mantoux positif dengan saringan sistemik negatif. Kedua-duanya menunjukkan respons baik terhadap terapi anti-tuberkulosis beberapa hari selepas terapi dimulakan. Tetapi serentak dengan kejadian ini, peningkatan vitritis berlaku. Vitritis menunjukkan penurunan selepas sahaja kortikosteroid oral diberi. Cara presentasi tuberkulosis okular kedua-dua kes ini jarang ditemui dan indeks kecurigaan yang tinggi diperlukan. Terapi anti-tuberkulosis pelbagai ubat perlu digabungkan dengan kortikosteroid oral untuk rawatan efektif.

Kata kunci: vaskulitis retina, tuberkulosis okular, Mantoux

ABSTRACT

Two case reports of retinal vasculitis in presumptive ocular tuberculosis are presented. Case 1 is a 26-year-old Malay woman who had phlebitis with choroidal lesions and case 2 is a 27 year old Malay woman who had occlusive arteritis. Both subjects had positive Mantoux tests with negative systemic screen. Both responded clinically to anti-tuberculous therapy within days of commencing therapy. There was however concurrent increase in vitritis which decreased following anti-inflammatory doses of oral corticosteroids. These two cases represent a rare mode of presentation of ocular tuberculosis for which a high index of suspicion is needed. Multidrug anti-tuberculous therapy should be combined with oral corticosteroids for effective treatment.

Key words: retinal vasculitis, ocular tuberculosis, Mantoux

Dear Editor,

Tuberculosis (TB) is a disease which is becoming more common. It has various forms of presentation and a high index of suspicion is needed in all cases of uveitis.

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CASE REPORTS

CASE 1

A 26-year-old Malay woman presented with a one-week history of painless decrease in right visual acuity. The right visual acuity was 6/36, N48. There was supero-temporal phlebitis with three yellow elevated choroidal lesions adjacent to it and cystoid macular oedema (Figure 1) . There was associated optic disc hyperaemia and mild vitritis. Fundus fluorescein angiography (FFA) did not reveal any capillary non-perfusion. The left eye was normal.

Her chest X-ray was normal and urine and sputum samples were negative for acid-fast bacilli. Her Mantoux reading was 15 mm. She was initially treated with streptomycin, isoniazid, rifampicin and pyrizinamide. After two days, the choroiditis improved but vitritis increased. She was started on a course of oral prednisolone (1mg/kg/day). Following further seven days of treatment, the phlebitis, choroiditis and vitritis resolved. The oral prednisolone was tapered off over two months. After a month, her vision had improved to 6/9, N5. She completed six months of anti-tuberculous therapy. She had no reactivation during anti-tuberculous treatment or after stopping prednisolone.

CASE 2

A 27-year old Malay woman with recent contact with TB patient had a two-week history of superior visual field blurring. Her visual acuity was 6/6, N5 bilaterally with no relative afferent pupillary defect. There was bilateral swollen discs with right vasculitis and adjacent retinitis (Figure 2). FFA revealed more than five disc diameters of capillary fallout distal to the arteritis and panretinal photocoagulation (PRP) was subsequently performed.

A brain CT scan was normal and connective tissue screen was negative. The Mantoux reading was 16mm. She was started on oral isoniazid, rifampicin, pyrizinamide and pyridoxime to which she responded rapidly during the first two days with a decrease in the area of retinitis. However by day seven, her mild vitritis had become worse even though the retinitis and vasculitis continued to improve. The vitritis responded to a course of oral corticosteroids of 40 mg/day which was tapered off over two months. She completed two months of all the drugs with the exception of rifampicin and isoniazid which were discontinued after nine months. There was no reactivation during treatment and for three months after stopping all medications. All clinical signs resolved.

DISCUSSION

In patients with retinal vasculitis, ocular TB should be a differential diagnosis (Morimura Y et al 2002). In addition to vasculitis, ocular TB may involve other structures such as the choroid and optic nerve. It is not unusual for ocular TB to occur in isolation with no evidence of systemic TB (Sarvananthan N et al 1998). Diagnosis is usually made by high index of clinical suspicion and significant Mantoux reaction (Morimura Y et al 2002). Samples of retinal vasculitic lesions are usually inaccessible but vitreous samples may be sent for polymerase chain reaction (PCR) (Sarvananthan N et al 1998). Monotherapy resistance rate has been reported as 7.3% (Pablos-Mendez A et al 1998) but may be as high as 28.7% (Khan MY et al 2001) for isoniazid. Hence the isoniazid test is less reliable now. The current regime is multidrug therapy where the reported resistance rate is still low at 2.2% (Pablos-Mendez A et al 1998). Corticosteroids and other immunosuppressive agents such as azathioprine may be used in conjunction with anti-tuberculous therapy when inflammation is marked. The vitritis in these cases may represent an immune response to breakdown products of the acid-fast bacilli (Morimura Y et al 2002). These cases illustrate the importance of not starting steroid alone when an infective process is suspected but to provide concurrent antibiotic cover. PRP may be

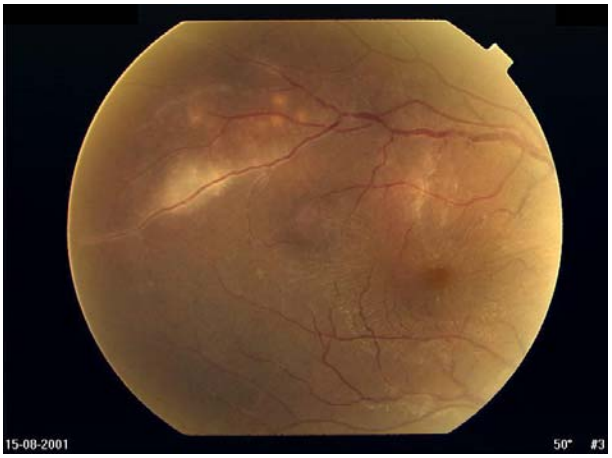

FIGURE 1: Case 1. Fundus photograph of the right eye showing phlebitis of the superotemporal vein with three adjacent choroidal lesions with macular oedema and disc hyperaemia.

FIGURE 2: Case 2. Fundus photograph of the right eye showing occlusive vasculitis involving the infero-temporal arteriole with adjacent retinitis.

required when there is occlusive vasculitis because rubeosis frequently occurs when ischaemia co-exists with inflammation.

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