ACUTE BILATERAL VIRAL NECROTIZING RETINITIS - AN UNCOMMON CASE REPORT

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ABSTRACT

A 22 year old male with a history of high grade fever for 2 days, diarrhea 3 times and vomiting 2 times presented with diminution of vision in right eye of 1 day duration. His best corrected visual acuity (BCVA) was counting finger 1 meter with no pin hole improvement and 20/20 (snellens) in the right and left eye respectively. Fundus examination RE revealed white lesion in geographic fashion with clear edge involving macula and in left eye small peanut size white lesion present at paramacular area. Clinically a diagnosis of acute necrotizing retinitis was made. We started treatment by intra venous antiviral and systemic steroid. ELISA (serum) and PCR (aqueous) were positive for herpes simplex virus (index above 1.1 i.e. 1.54)[1,2]. The lesions showed a good response to the above treatment. At 2 months follow-up, lesion had resolved well with BCVA of 20/40 and 20/20 in right and left eye respectively.

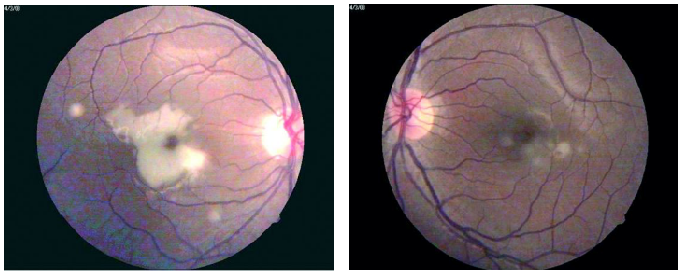
INTRODUCTION

Herpes viruses are a DNA virus that affect man and animals & cause multiple systemic diseases. Herpes simplex occurs naturally only in man. Ophthalmic manifestation includes keratitis, follicular conjunctivitis, choreoretinitis and uncommonly acute necrotizing retinitis, which is a serious manifestation[3,4]. We report an interesting case of bilateral necrotizing retinitis and its visual prognosis.

CASE REPORT

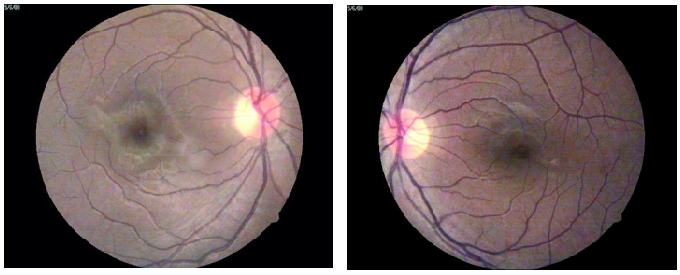
A 22 years old male (student) presented with sudden painless loss of vision in the right eye of 1 day duration. Patient was symptomatically treated for fever, diarrhea and vomiting for 2 days. On examination his BCVA was CF 1 meter and 20/20 in the right and left eye respectively. Severe RAPD was noted in right eye. Slit lamp examination showed a quiet anterior segment and 1+ vitreous cells (Grading : Himura and Colleagues) in both eye, IOP were normal. Fundus examination of right eye showed area of necrotizing retinitis in geographic fashion involving macula. In the left eye a peanut size white patches were seen temporal to macula (Fig. 1 A & B). Fundus fluorescene angiography showed area of capillary non-perfusion corresponding to retinitis lesion and optical coherence tomography showed area of full thickness retinal necrosis. Laboratory investigation includes an ESR-46mm 1st hour, Hb%-12.7 mg%, TWBC-10,800/Cumm, DC-N 75%, L-15%, E-10%, urine contained trace albumin. Coagulation profile, blood sugar, liver and renal function, chest X-ray normal. VDRL (slide flocculation) was negative. ELISA showed positive IgM and IgG antibodies for herpes simplex I and II. Aqueous tap was +ve for

Figure 1a and 1b



Photograph showing the 1st day

Figure – 2a and 2b



Photograph showing the 9th day

herpes simplex virus [5].

He was treated with intravenous 800mg Acyclovir twice daily for first three days, then oral steroid in a dose of 1mg/kg body weight was added on the second day of antiviral treatment. Oral Valacyclovir (1000mg tab) was given BID for 7 days and 500 mg tab BID for next 7 days. Oral steroid was gradually tapered over 4 weeks[6]. At the end of 4 weeks there was no further deterioration or appearance of any new lesions. On last follow up (1 month) the retinal lesions had heeled well (Figure-1a and 1b) and BCVA was 20/40 and 20/20 in the right and left eyes respectively.

DISCUSSION

The most common clinical manifestation of HSV retinitis has been described as acute retinal necrosis (ARN) syndrome in the Japanese literature by Urayama et al in 1971 [8]. But in 1990 Foster et al described the entity as progressive acute retinal necrosis (PORN) in AIDS patients having severe immunocompromised state[9]. We report an interesting case of bilateral retinal necrosis in a patient with PCR of aqueous sample proved positive for Herpes simplex virus. Bilateral involvement is a consistent key feature[10].

Most cases are associated with encephalitis, but it was absent in this case. Also typical history of ocular pain, mild anterior uveitis was absent except mild vitritis. Retinal necrosis results in rapid confluence of well-demarcated areas of full thickness retinal involvement over the next 2 to 4 days may be due to an occlusive vasculitis and papillitis[7]. Based on clinical diagnosis, we started I.V. antiviral and then systemic steroid to prevent further retinal damage and got good visual improvement as well as complete remarkable regression of the lesion.

RECORD OF THE VA (RIGHT EYE)

1 Day	-	1 meter
3 Days	-	4 meter
7 Days	-	20/100
9 Days	-	20/80
2 Weeks	-	20/70
4 Weeks	-	20/40

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