Case Report

Post dengue choroiditis: Case report

Monali Shrirang Desai[1*], Bhalchandra Joshi[2], D K Sindal[3], Gaurav Paranjpe[4]

[1]Resident, [2]Associate Professor, [3]Professor and HOD, [4]Assistant Professor, Department of Ophthalmology. Krishna Institute of Medical Science University, Karad, Satara, Maharashtra, INDIA.

Email: desai.monali@ymail.com

Abstract

Dengue virus is a single stranded RNA arbovirus from family Flaviviridae. 4 serotypes have been isolated Dengue type 1-4. A patient presented with acute onset of loss of vision preceded by febrile illness, malaise, fatigue and headache who was diagnosed with dengue. Ophthalmologic evaluation revealed a normal anterior segment. Direct & Indirect ophthalmoscopy revealed multiple foci of chorioretinits with cotton wool spot & haemorrhages in both eyes.Healing of the lesion showed discrete atrophic and pigmented chorioretinits scars. CBC and Urine routine showed normal results. Serologic testing revealed elevated IgG and IgM antibodies to dengue virus. Other differential diagnosis e.g, malaria, syphilis, viral fevers were ruled out.

Keywords: dengue, Ophthalmologic evaluation.

[*]**Address for Correspondence:**
Dr. Monali Shrirang Desai, Department of Ophthalmology. Krishna Institute of Medical Science University, Karad, Satara, Maharashtra, INDIA.
Email: desai.monali@ymail.com

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INTRODUCTION

Dengue virus is a single stranded RNA arbovirus from family Flaviviridae. 4 serotypes have been isolated Dengue type [1-4]. A patient presented with acute onset of loss of vision preceded by febrile illness, malaise, fatigue and headache who was diagnosed with dengue. Ophthalmologic evaluation revealed a normal anterior segment. Direct and Indirect ophthalmoscopy revealed multiple foci of chorioretinits with cotton wool spot and haemorrhages in both eyes.Healing of the lesion showed discrete atrophic and pigmented chorioretinits scars. CBC and Urine routine showed normal results. Serologic testing revealed elevated IgG and IgM antibodies to dengue virus. Other differential diagnosis e.g, malaria, syphilis, viral fevers were ruled out

CASE REPORT

A 32 year old male who presented with sudden painless loss of vision in both eyes since 15 days. The ocular findings were preceeded by symotoms of fever, malaise, headache, artharlgia and petechial rash week before. There was no history of systemic diseases such as diabetes, hypertension, blood dyscrasias. No history of blood transfusion and ocular surgical intervention. On general examination, the patient was calm, co-operative and conscious.

Vitals: Temp- 103 ℉. Blood pressure – 100/ 70 mm Hg. Pulse – 120/min

Visual acuity: finger counting 1 meter OD and finer counting 3 meter OS. No improvement with pinhole.

Pupillary reaction direct and consensual was normal. No relative afferet pupillary defect was seen. Intraocular pressure recorded by Schiotz tonometer, was 17.3 mm of mercury in both eyes.

Anterior segment: Normal.

Fundus examination showed multifocal areas of chorioretinitis with cotton wool spots and flame shaped hemorrhages in the right and left eye.

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Figure 1

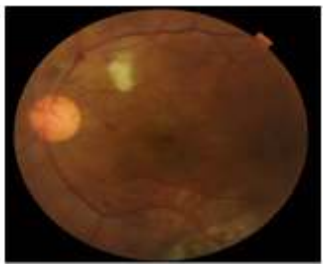


Figure 2

Legend

Figure 1: Fundus picture of right eye showing macular oedema with chorioretinitis patch.

Figure 2: Fundus picture of left eye showing vasculitic and retinal oedema along superior and inferior arcade with macular oedema.

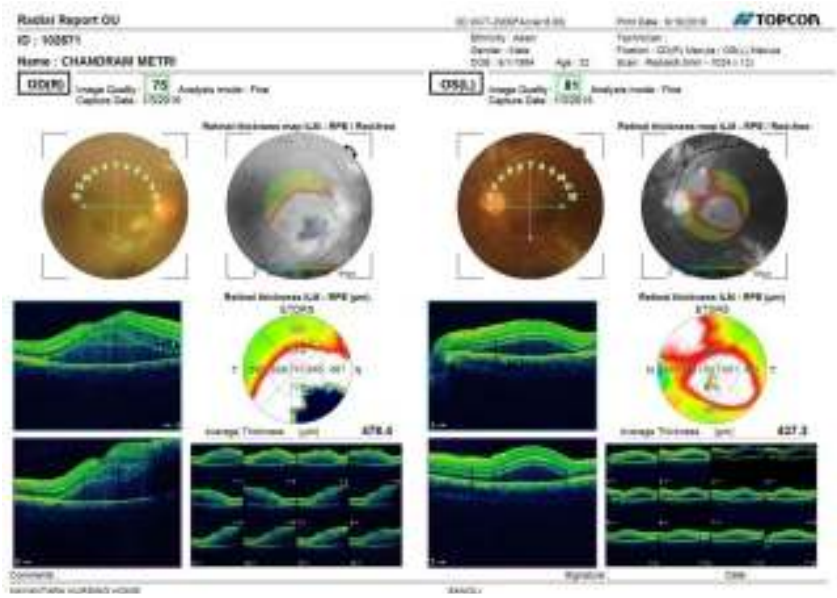


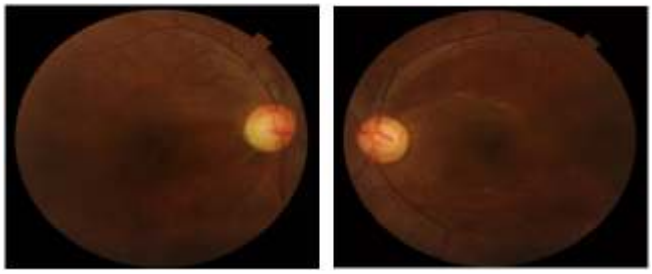
Figure 3: Optical coherence tomography showed both eyes macular oedema with accumulation of sub retinal fluid

OTHER INVESTIGATIONS

Hemogram : Hemoglobin (Hb)- 15.3g%
Red blood cell count: 3.2 million/cumm
White blood cell count: 3100/cumm
Differntial count:
Neutrophil : 60%, Eosinophil : 2%
Basophil : 1%, Lymhocyte : 30%
Monocyte : 7%
Packed cell volume : 58 vol %
Mean corpuscular volume: 85cmm
Mean corpuscular Hb: 25pg
MCH concentration: 30%
Platelet count: 80,000/cu.mm
Clotting time: 5 min 40 s
Bleeding time: 3 min 10 s
HIV Screening test (tri dot method): Nonreactive
Plasmodium vivax and Plasmodium falciparum : Negative
VDRL test : Nonreactive
Lipid profile : Normal
Chest X-ray : Normal
Ultrasound abdomen : Minimal ascitis
Peripheral smear : Normal
NS1 Antigen : positive
IgM antibody:
Day 0 : positive
Day 3: More than fourfold rise in antibody titre,
ECG : Normal
Liver function test : Normal

TREATMENT

The patient was given IV methylprednisolone 1gm IV for 5 days and then started on oral steroids (1mg/kg) of body weight and tapered weekly by 10 mg. Locally both eyes prednisolone eyedrops 1% were given QID with antibiotic eyedrops QID and tapered over a week with non steroidal anti inflammatory drugs nepafenac in both eyes. Three months after the treatment, the best corrected visual acuity improved to 6/12 in right eye and 6/9 in left eye.



Legend

Figure 4: Fundus photograph of right eye post treatment showing resolution of macular oedema.

Figure 5: Fundus phototgraph of left eye post treatment with resolution of retinal and macular oedema.

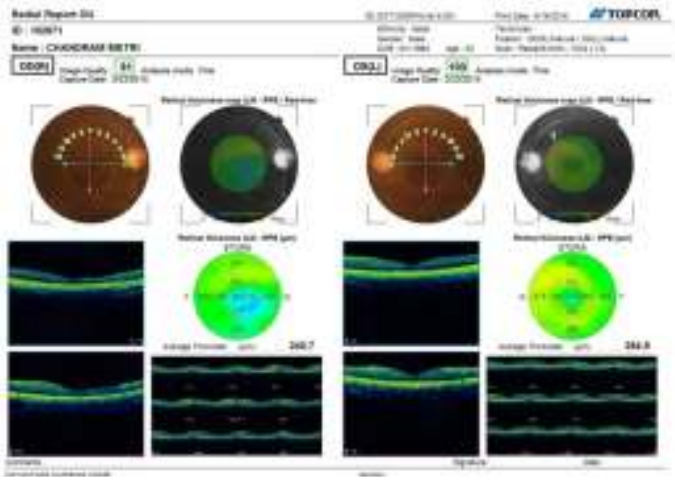


Figure 6: Optical coherence tomography p

ost treatment showed Right eye – Macular thinning with distruption of inner segment/outer segment junction and Left eye- near normal macula (no oedema). Foveal contour became normal

DISCUSSION

Dengue related ophthlmic complications are under-emphasized in medical texts and literature. The typical patient is a immunocompetent individual who presents with diminutionof vision after onset of fever coinciding with nadir of thrombocytopenia. Ocular findings are typically those of an inflammatory maculopathy comprising focal chorioretinitis and haemorrhages with macular oedema. The condition resolved with subsequent improvement in visual acuity. The cause of haemorrhage could be thrombocytopenia with coagulation defects, capillary fragility, consumptive coagulopathy and platelet dysfunction.[2]

CONCLUSION

We have presented case of post dengue chorioretinitis with macular oedema. Diagnosis was substantiated by serological and clinical parameters. Normally ocular complications in dengue are inflammatory maculopathy. However posterior segment chorioretinal patches with haemorrhages and macular oedema is uncommon which has been reported in literature[1] Being an unusual presentation and very good visual as well as fundoscopic and optical coherence tomography improvement has been remarkable in this case.

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