Case Report

Dengue Uveitis : A Case Report

Zakia Sultana[1]

Abstract

Dengue uveitis is a rare form of complication after dengue fever . It is caused by The disease is attributed to the dengue virus, a member of the Flaviviridae family. A 46 years old female patient presented to us with the complaints of pain, redness, severely diminished vision and photophobia for 1 month . She gave history of diagnosed dengue fever 1 month and 9 days back. Patient had conjunctival congestion, corneal edema, descemets folds, extensive keratic precipitates, posterior synaechia, pigment dispersion, early cataract and vitritis with vitreous opacity . Later he was diagnosed as a case of dengue uveitis .

Keywords: Dengue fever, uveitis

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Introduction

Dengue fever (DF), a viral disease transmitted by mosquitoes, has become a notable public health issue in Bangladesh. The disease is attributed to the dengue virus, a member of the Flaviviridae family, which comprises four unique serotypes: DENV-1, DENV-2, DENV-3, and DENV-4 . Transmission takes place via the bite of infected female Aedes mosquitoes, mainly Aedes aegypti. The clinical manifestations of dengue fever exhibit a broad spectrum, from mild flu-like symptoms to severe and potentially life-threatening conditions, including dengue hemorrhagic fever (DHF) and dengue shock syndrome (DSS). Common manifestations consist of elevated temperature, intense headache, pain behind the eyes, muscle aches, joint pain, and a distinctive skin rash. In certain instances, the disease may advance to severe dengue, which is marked by plasma leakage, significant bleeding, and involvement of organs. Although there are no specific treatments for dengue, prompt recognition and effective case management are essential to lower fatality rates 1-5 . According to the Directorate General of Health Services (DGHS), a total of 203,406 dengue cases and 989 deaths were recorded between January 1 and September 30, 2023[6] .

Ophthalmic complications represent clinically significant manifestations that are often underrecognized. Dengue fever can manifest with severe ocular and adnexal inflammation that poses a significant threat to vision. The mechanism behind ocular complications related to dengue is still not fully understood and is less clear compared to the systemic manifestations of the disease. Reports outline a range of conditions, including subconjunctival hemorrhage, uveitis, panuveitis, vitreous opacities, vitritis, retinitis, sub-hyaloid hemorrhage, retinal hemorrhages, maculopathy, neuororetinitis, optic neuropathy, and corneal epitheliopathy. Sometimes it also may show scleral melt, necrotizing scleritis,

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globe rupture, endophthalmitis, and panophthalmitis even retinal vessel occlusion and vitreous hemorrhage [7-14].

Case Report:

A 46 years old female patient presented to us with the complaints of pain, redness, severely diminished vision and photophobia for 1 month. She gave history of diagnosed dengue fever 1 month and 9 days back which was resolved after 6 days. She also showed her investigation reports of NS1 positive for dengue and low platelet count . She gave history of dengue induced skin rashes and headache for 4 days during her fever. Patient did not give any history of cough, respiratory distress, diarrhoea etc. Her lymph nodes were examined later and no abnormal mass was found . She was normotensive and non diabetic.

On slit lamp examination, her visual acuity was counting finger 1 foot in right eye and 2 feet in left eye. Patient had conjunctival congestion, corneal edema, descemets folds, extensive keratic precipitates, posterior synaechia, pigment dispersion, early cataract and vitritis with vitreous opacity. Her intraocular pressure was 12 mm in both eyes.

On investigations, Complete blood count showed neutrophilic leukocytosis and eosinophilia; Hb% was 15 gm/dl; ESR 55 mm in 1st hour. Patient had normal random blood glaucose level with HBsAg negative. Her ECG was within normal limit. Her Xray showed normal appearance of chest and spine. Venereal disease research laboratory (VDRL), treponema pallidum hemagglutination (TPHA), montoux test (MT), Anti nuclear antibody (ANA), human leukocyte antigen B27 (HLA-B27) and rheumatoid factor (RF) all were negative with high C reactive protein level. Her b-scan and colour fundus photography were performed.

Primarily she was diagnosed as uveitis in both eyes. She was treated by oral and topical steroid, topical antibiotics, mydriatics. She was advised for follow up after
7 days.

After 7 days, her posterior synaechia was reduced, uveitis and vitritis was resolving and vision was improving. Optical Coherence Tomography (OCT) was done and no visible macular edema was found. Patient was advised to continue treatment for 1 month and follow up accordingly .

Discussion

Dengue is recognized as an epidemic in Bangladesh. Dengue induces multiple hyper sensitivity reactions, immediate and cell mediated hyper sensitivity which can cause inflammatory ocular complications.

Ocular manifestations like orbital inflammations, subconjunctival hemorrhage, keratitis, scleritis, uveitis, complicated cataract, vitritis, neuritis, retinitis even vitreous hemorrhage and vasculitis retinae may appear as complications. Symptomatic treatment of fever along with specific treatment for ocular manifestations can save vision . Anti inflammatory agents like topical and oral NSAIDs and steroids can show effective role in treatment. Regular follow up and proper treatment is necessary for preventing visual morbidity [15-21].

Conclusion:

Dengue uveitis is not very common but it makes a place in a country like Bangladesh where dengue is an epidemic. Ocular examination by ophthalmologist must be included in Dengue examination and treatment protocol. Thus we can perform early diagnosis and promt treatment and prevent hazards of ocular complications.

Limitations:

This study was conducted based on single case. Multiple case studies were necessary.

Data Availability

Data used to support the findings of this study were included within this article.

Ethical Aspect

Patient's confidentiality was ensured

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