Subhyaloid Haemorrhage Following Dengue

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Introduction
The incidence of dengue has increased dramatically in recent years and Kerala is at present in the throes of a viral fever epidemic comprising chiefly of chikungunya and dengue fever. Previously, ocular findings were considered rare in dengue fever, however, various types of intraocular haemorrhage, vasculitis, disc oedema and retinal pigment epithelitis have been described in small case series. Here we present a case of viral fever (serologically proven dengue fever) in which the patient developed a subhyaloid haemorrhage in one eye and presented with acute unilateral visual loss.

Case Report
A 14 year old female presented with history of sudden loss of vision right eye of 3 days duration. She gave a history of fever, anorexia, myalgia and vomiting for the past one week for which she was on treatment.

On examination, vision in the right eye was counting fingers at ½ metre, and 6/6 in the left eye. Anterior segment was within normal limits. Dilated fundus evaluation showed a large subhyaloid haemorrhage over the macula in the right eye (Fig 1). Left eye was normal. A baseline laboratory investigation showed reduced platelet count (1.12 lakh/mm$^3$), bleeding time of 1 minute 20 seconds and a clotting time of 3 minute 20 seconds.

A Nd Yag hyaloidotomy right eye was done and the subhyaloid blood drained (Fig 2a, b, c). She was referred to a physician to rule out dengue. Dengue antibody titre was found to be positive and she was started on treatment for the same.

On review 10 days later, her vision had improved to 6/9 in the right eye. Fundus evaluation showed adequate clearing of subhyaloid haemorrhage in the right eye with small vitreous haemorrhage in inferior part of vitreous cavity (Fig 3). Her platelet count had increased to 3.34 lakh/mm$^3$.

Discussion
Dengue fever may occur in two forms- the classic form and haemorrhagic form. Common symptoms such as fever, headache, prostration, myalgia, nausea and retro orbital pain occur in both whereas haemorrhagic signs and other signs of severe disease such as shock, gastrointestinal bleeding, petechiae, epistaxis, abdominal pain, effusion and death are strongly associated with haemorrhagic dengue fever.

The ocular manifestation include subconjunctival haemorrhage which is the commonest eye finding $^1$. Other studies have described macular haemorrhage as the principal finding $^2$. Fundus findings are dilation and tortuosity of vessels, superficial retinal haemorrhages both macular and retinal, cotton wool spots and hard exudates, maculopathy, diffuse retinal oedema, peripapillary haemorrhage, vitreous cells, optic disc oedema, retina vasculitis, exudative retinal detachment and anterior uveitis $^3$.

The fluorescein angiographic findings included poor choroidal flushing, delayed disc filling, disc extravasations, blocked fluorescein, capillary obliteration, non filling of macular network, capillary leakage and window defect $^2, 4$.

It has been found that dengue fever patients with significant thrombocytopenia (<50,000 cells/mm$^3$) are predisposed to spontaneous ocular haemorrhages.
described. The thrombocyte count in this case was only borderline and not significantly reduced. However, severe vomiting associated with the fever may have led to the haemorrhage, (Valsalva retinopathy).

Premacular subhyaloid haemorrhage may occur from proliferative diabetic retinopathy, ruptured retinal macroaneurysm, neovascularisation in branch retinal vein occlusion, Valsalva retinopathy and Terson Syndrome resulting in sudden profound visual loss. Valsalva retinopathy can also result in subconjunctival haemorrhage. The common causes are forceful coughing, sneezing, weight lifting, intercourse and other strenuous activities. Forced expiration against a closed glottis can lead to sudden increase in intrathoracic and intra-abdominal pressure thereby suddenly increasing pressure in the veins of head and neck leading to haemorrhage.

In young patients where there is no posterior vitreous detachment this blood collects in the premacular area resulting in a boat shaped haemorrhage with horizontal upper level.

Premacular haemorrhages can be managed conservatively, by vitrectomy or hyaloidotomy. Nd-YAG laser is used for creating a hole in the posterior hyaloid \textsuperscript{7,8}. It is done where the blood is thickest and farthest away from the fovea. 1-4 shots of 3.8-4.2 mJ are used with Goldman 3 mirror contact lens for focusing after local anesthesia instillation. Spontaneous clearance may take many months. Long standing subhyaloid haemorrhage may result in poor visual outcome if a fibrotic epiretinal membrane develops. Altered blood products may result in pigment alteration in the macula too. However, with treatment, very good results are obtained.
Conclusion

In a patient with subhyaloid haemorrhage and no other cause, a platelet count and antibody titre for dengue is necessary especially if there is a history of fever preceding the episode of bleeding.

References


“OF PUPILS..... AND TEACHERS”

Mind Your Language

RRV (Dr. Varma)

Debates go on among the medical fraternity as to how to tell and how much to tell the patient for the ‘informed consent’. Most of our patients are knowledgeable and hence easy to educate. The net and innumerable lay ‘medical’ periodicals have obviated the need for detailed explanations. Some twenty years back communicating technical details was like two people talking in two different languages. Sometimes there is the actual language barrier. Kochi, being a melting pot of cultures, has people who talk Hindi, Punjabi, Marathi, Gujarathi, Sindhi, Bengali, Konkani, Thulu, Kannada, Tamil and Telugu, not to mention the curious lingo of Kudumbis. And the tourist season brings in most of the European languages into our consultation rooms. [My neighborhood shop-keeper had been in the Merchant Navy and helped me out once with a Greek patient]. It is so frustrating not being able to explain. Of course, in the land of Kathakali, we can resort to mudras to a certain extent; yet.....

The year was 1980 and I was a P.G.student in the B.J.Medical College, Ahmedabad. A boy was brought with history of a goat butting him in the face. He was the son of migrant Tamil labourers and had extensive lacerations of the upper tarsus. To my Registrar, all space below the Vindhyas was Madras. And of course everyone spoke ‘Madras’. (Actually when I talked about Malayalam one of my classmates had asked me: “Malayalam is spoken in Malaysia, chhe na, Varma Bhai?”) I, as a fellow ‘madrasi’ was asked to explain the prognosis to the parents. My linguistic skills were still underdeveloped back then. So I thought in Malayalam, translated it to my version of Tamil, and explained to the by-standers quite lucidly, or so I thought. After I finished (and sighed in relief), the father of the boy said in suddh Hindi: “Doctor Saab, will you please repeat in Hindi what you have just said?”

I had once watched the late Dr. M.G.Krishnan deal with a North Indian patient quite efficiently. He wanted her to lie down and didn't know how to say so in Hindi. Nor did me, his helper. He thought for a while, pointed to the examination couch and with great aplomb, made a sound, “PDKO” (don't ask me to pronounce it). The patient quietly went and lay down.