

Sir,
Bilateral vitreous haemorrhage associated with dengue fever

We herein report a young girl developing bilateral vitreous haemorrhage as an ocular manifestation of dengue haemorrhagic fever (DHF).

Case report

A 14-year-old girl presented with diminution of vision in right eye since 4 months. She had high-grade fever with chills, muscle pain, headache, and episodes of bleeding through mouth and during defaecation 2 days before developing eye problems. DHF was confirmed by detection of rise in IgG dengue fever antibody titre and markedly decreased platelet counts. Examination revealed bilateral vitreous haemorrhage. She was referred to us after her general condition improved.

At presentation, she had light perception OD and 6/18 OS. Anterior segment examination was unremarkable in both eyes. Fundus examination revealed organized vitreous haemorrhage OD and resolving vitreous haemorrhage OS. Right eye pars plana vitrectomy was performed. No surgery was planned in left eye. At 12 weeks postoperatively (Figure 1), her visual acuity was 6/12 in both eyes.

Discussion

DHF is a mosquito-transmitted viral disease¹ that is endemic in tropical countries. Patient typically develops



Figure 1 Fundus photograph of the right eye 8 weeks postoperative showing wrinkling of internal limiting membrane at the posterior pole and fibrous tissue laden with degenerated blood along inferotemporal arcade and disc.

sudden onset of fever with severe headache, retrobulbar pain, backache, chills, gastrointestinal disturbances, and generalized myalgias and arthralgias. A maculopapular rash usually appears on trunk spreading to face and extremities. Fever is accompanied by leucopenia and thrombocytopenia. The diagnosis can be made by detecting IgM antibodies or a rise in IgG titres during the convalescent phase or by isolation of virus or polymerase chain reaction dengue viral genome.^{2,3}

Such presentation of bilateral intraocular haemorrhage may be seen in Rift Valley fever (RVF) virus infection. However, RVF is predominantly associated with exudate-like retinal lesions.⁴ Similarly, if patient presents with bilateral vitreous haemorrhage, severe headache and myalgias after initial fever and rashes of DHF have subsided, he may be misdiagnosed as a case of Terson syndrome.

Ocular manifestations^{2,5} reported in DHF are intraretinal haemorrhage, macular haemorrhage, Roth spots, cotton wool spots, retinal oedema, disc oedema, or choroidal effusion. Our patient developed bilateral vitreous haemorrhage, significant enough in right eye that required vitrectomy. She had marked thrombocytopenia and detection of rise in the IgG dengue fever antibody titre confirmed DHF. To the best of our knowledge, till date, vitreous haemorrhage as a part of ocular manifestation of DHF have not been reported earlier.

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S Nainiwal¹, SP Garg¹, G Prakash¹ and N Nainiwal²

¹Dr Rajendra Prasad Centre for Ophthalmic Sciences
All India Institute of Medical Sciences
New Delhi 110029, India

²Department of Microbiology
Seedling Academy of Design
Technology & Management
Jaipur 302017, India

Correspondence: S Nainiwal,
House No. B-297, Harimarg,
Malviya-Nagar,
Jaipur - 302017,
Rajasthan, India
Tel: +91-141-2521540;
Fax: +91-11-26588919.
E-mail: nainvision@yahoo.com

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Sir,
Uveitis and the menstrual cycle

We read with interest the article 'Uveitis and the menstrual cycle' by Sanghvi *et al.*¹ In their study, the authors reported the relation between menstrual cycle and patient-reported onset of acute anterior uveitis (AAU), in 76 regularly menstruating women. They concluded that the onset of AAU was partially dependent on the levels of either oestrogen or progesterone, or both. They summarized that they have demonstrated a significant increase in the incidence of AAU arising late in the menstrual period. While we applaud the authors' efforts on this important issue, we felt that the authors have to clarify a few points before arriving at their conclusion.

First, the authors admitted that they have not performed any serum assay of hormones to demonstrate the relation between the onset of AAU and blood levels of oestrogen or progesterone. What they have shown in fact was a possible increase in incidence of AAU in late menstrual cycle. The authors considered that the incidence was significantly increased. However, as they have pointed out, in fact that was 'just approaching statistical significance but not yet achieving it'. What is more, while the recall bias for the date of commencement of last menstrual period (LMP) was probably not great, that for the date of commencement of onset of uveitis was yet unknown. It is not unusual for mild anterior uveitis to be relatively silent and asymptomatic in the early phase of the disease. The relationship between menstrual cycle and onset of AAU that the authors presented was thus better described as a possible one.

Second, anterior uveitis is a heterogeneous group of diseases. It would be of value to know the aetiologies of anterior uveitis in this group of patients, and especially in those recurrent cases. Anterior uveitis is known to be much more subclinical when associated with certain aetiologies, such as juvenile rheumatoid arthritis² and

inflammatory bowel disease.³ That again has bearing as to the accuracy of self-reported onset of AAU. It would also be interesting to see whether there are specific aetiologies that are particularly dependent on menstrual cycle.

Third, 65 out of 76 patients were having a second or subsequent attack. It would be imperative to know whether they were 'acute on chronic' cases in which they might still be put on low tailing down dose of steroid before the attack, which might modify their self-perceived onset of recurrent AAU.

We suggest that the authors may also try to see whether the acute uveitic attacks were particularly severe with respect to, for example, intraocular pressure rise, frequency and dosage of steroid required to abort the attack, etc., during a particular phase of menstrual cycle. We believe that reliance on objective signs may be a better measure than self-reported onset of disease.

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DYL Leung and DSC Lam

Department of Ophthalmology and Visual Sciences, The Chinese University of Hong Kong 2/F, Hong Kong Eye Hospital, 147K Argyle Street Kowloon, Hong Kong, People's Republic of China

Correspondence: DYL Leung
Tel: +852-27623000
Fax: +852-27687058
E-mail: dexleung@alumni.cuhk.net

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Sir,
Female sex hormones and uveitis

I read with interest the paper by Sanghvi *et al.*¹ 'Uveitis and the Menstrual Cycle'. The authors studied a group of