CASE REPORT

Central Serous Choroidopathy in Pregnancy

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Summary

Central serous choroidopathy is a spontaneous serous detachment of the sensory retina, usually affecting adults between 20 to 50 years of age but is also found in patients older than 60 years of age. This disease usually affects males with a male to female ratio of 8-10 to 1. Many aetiological or associated factors have been described. Here we report a 39-year-old pregnant lady presented with left central serous chorioretinopathy preceded by an unusual emotional disturbance. She was not given any photocoagulative treatment to avoid possible photocoagulative complications. Post delivery, she presented with resolution of the CSC.

Key Words: Pregnant lady, Emotional disturbance, Chorioretinopathy, Resolution

Case Report

A 39 year old Malay clerk, at the 30th week of gestation of her fourth uncomplicated pregnancy presented with two weeks history of blurring of left central vision, preceded by some form of emotional stress. She was very stressed that she could not perform her daily clerical work as before. She had no history of pregnancy induced hypertension in the past.

General examination revealed a young healthy lady, normotensive and not anaemic. The cardiovascular and respiratory systems were also normal. The abdominal examination was consistent with a 30 weeks gravid uterus. There was no evidence of proteinuria. Ocular examination revealed right visual acuity of 6/5 and left visual acuity of 6/6. The near vision for the right and left eye was N5 and N10 respectively. Both pupils were reactive briskly to light with no relative afferent pupillary defect. The Amsler grid examination of the left eye revealed the presence of shadow and distorted lines however, there was no abnormality in the right eye. Fundoscopy of the left eye using quadraspheric contact lens revealed a shallow elevation of the sensory retina at the macular region with well-defined border outlined by a glistening ring reflex. There was no evidence of retinal pigment epithelium detachment or evidence of subretinal neovascular membrane. The foveal reflex was absent. This is illustrated in Figure 1. The right fundus was normal.

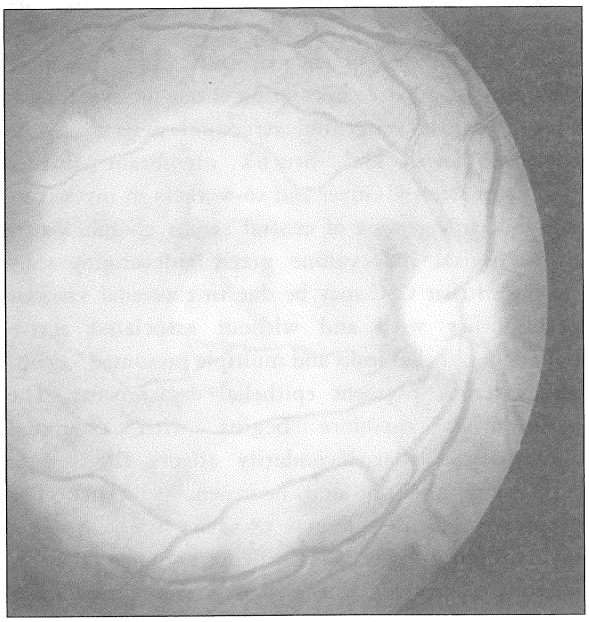

Fig. 1: Fundus photograph of the left eye

A diagnosis of left central serous chorioretinopathy was made. Choroidal tumours and retinal pigment epithelium detachment having a similar presentation were considered in the differential diagnoses. Pigment epithelium detachment caused by age-related macular detachment usually occurs in patients with drusens which was not found in this patient.

Fundus fluorescein angiography was not performed, as the patient was pregnant. She was reassured that she did not require any treatment as spontaneous resolution was expected. A few months post delivery she returned with improvement of vision, disappearance of the metamorphopsia and fundoscopy revealed resolution of the central serous choroidopathy.

Discussion

Central serous choroidopathy (CSC) is a spontaneous serous detachment of the sensory retina, usually affecting adults between 20 to 50 years of age but is also found in patients older than 60 years of age. This disease usually affects male with a male to female ratio of 8 - 10 to 1[1]. CSC occurs following an exudative choroidal reaction that is sufficient to detach the neuroepithelium. The aetiological factors causing the detachment are unknown. It is suggested that the transient neuroepithelial detachment may result from little more than physiologic decompensation at one or several focal sites of minor congenital structural defects in the choriocapillaries and Bruch's membrane during vasomotor stress [2]. Guyer and co-workers in investigating the pathogenesis of central serous choroidopathy using digital indocyanine green videoangiography concluded that CSC may be due to choroidal vascular permeability with and without associated active pigment epithelial leaks and multiple presumed 'occult' serous retinal pigment epithelial detachments. The pathogenesis therefore begins with choroidal abnormalities that secondarily affects the retinal pigment epithelium and neurosensory retina. The propensity for these lesions to occur in the macular region is probably related to differences in hemodynamic stress occurring in this area as a result of abundant short ciliary arterial blood supply to the capillary bed of the macular region [2].

The disorder is more common in men and usually unilateral, systemic and ocular factors must play a role. Pregnancy is one of the associated factors in central serous choroidopathy. This patient, a female, aged 39 at her fourth pregnancy presented with central serous choroidopathy. It is suggested that a hormonal agent, which increases in concentration during pregnancy, is one possible causative factor in this disease. The increase in plasma volume and total blood volume during pregnancy causing circulatory changes in the choriocapillaries can provoke central serous choroidopathy in a predisposed eye. The importance of an ocular factor was suggested by the fact that in consecutive pregnancies the relapse of central serous choroidopathy occurred in the same eye [3].

The diagnosis of CSC can be made clinically, but fluorescein angiography is necessary to rule out the presence of subretinal neovascular membrane which may cause a serous detachment of the sensory retina which can mimic CSC. Fluorescein angiography is also performed immediately prior to photocoagulation so that localization of the focal area of retinal pigment epithelium detachment overlying the leak in the choriocapillaries can be identified [2].

Spontaneous remission and near total visual recovery is the rule in CSC. It resolves within twelve months with an average of six months from the onset of symptoms. Other studies indicated 60% resolution in three months and 20% lasted greater than six months[2]. Laser photocoagulation may be considered if symptoms significantly interfere with required visual function and in the presence of microarchitectural changes in the macular retina (such as cystoid degeneration). It is also considered if the best corrected visual acuity declines to 20/40 or less, with multiple recurrences and when the retinal detachment lies outside the macular region.

Direct photocoagulation hastens restoration of normal function by promoting local debridement of the pigment epithelium, allowing neighbouring pigment epithelial cells to cover the defect. Photocoagulation has its complications such as development of choroidal neovascularization at the site of treatment. Other uncommon complications include inadvertent

photocoagulation of the foveal and parafoveal retinal region. Therefore the correct diagnosis of CSC as a cause of visual disturbance in pregnancy may avert superfluous diagnostic and therapeutic measures [3].

References

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