

## Case Report

### Retinal Detachment in Primigravida with Antepartum Eclampsia : A Case Report

Saura Kamal Dutta<sup>1</sup>, Gautam Paul<sup>2</sup>, Ankita Chakraborty<sup>3</sup>

Eclampsia is a new-onset generalized seizure in patients with preeclampsia. Retinal detachment is one of the rare complications of pre-eclampsia. Here we describe a case of a primigravida presenting at term pregnancy with eclampsia and vision loss. She was found to have a serous retinal detachment in one eye and features of Eclampsia-associated Retinopathy in another eye. She underwent cesarean section due to fetal distress, with the delivery of a healthy baby. In the postpartum period, serial examination showed, complete reattachment of the retina.

[J Indian Med Assoc 2022; 120(5): 51-2]

**Key words :** Retinal Detachment, Hypertension, Preeclampsia, Eclampsia.

**P**re-eclampsia affects 5 % of pregnant ladies and is defined as new-onset hypertension after 20 weeks of gestation plus proteinuria or evidence of end-organ compromise including renal insufficiency, thrombocytopenia, pulmonary edema, CNS symptoms, or liver dysfunction<sup>1</sup>. In the absence of either proteinuria or hypertension patients with the aforementioned findings are considered to have an atypical variant of preeclampsia. Eclampsia is a new-onset generalized seizure in patients with preeclampsia. Retinal detachment is one of the rare complications of preeclampsia, affecting only 1-2% of patients and 10% of those with eclampsia<sup>2</sup>. The majority of patients who present with retinal detachment during pregnancy have a complete recovery after delivery, following conservative management.

#### CASE REPORT

A 20-year-old, primi female, housekeeper, resident of the rural village of Barak valley with no history of hypertension presented to the labor room of the Maternal and Child Health Department at 36 weeks with headache, lower limb edema, and blurred vision.

She also had two episodes of generalized seizure on the way to the hospital. On examination, her Blood pressure was 170/100 mmHg. The urine analysis showed proteinuria but other laboratory exams didn't show Liver enzymes elevation, Thrombocytopenia, or hemolysis.

<sup>1</sup>MS Ophthalmology, Senior Resident, Department of Ophthalmology, Dhubri Medical College and Hospital, Dhubri, Assam 783324

<sup>2</sup>DOMS, MS Ophthalmology, Professor & Head, Department of Ophthalmology, Jorhat Medical College and Hospital, Jorhat, Assam 785001

<sup>3</sup>MBBS, MS Obstetrics and Gynaecology, Postgraduate Student, Department of Obstetrics and Gynaecology, Silchar Medical College & Hospital, Silchar 788014

Received on : 24/09/2020

Accepted on : 18/02/2022

#### Editor's Comment :

- Thorough eye examination is a must for patients presenting with dimness of vision along with Antepartum Eclampsia, as this can be due to Retinal Detachment in some cases.
- Proper management of eclampsia, regular fundus examination and follow-up is the key management strategy.

She was started on a magnesium sulfate regime, and vitals fluid output monitoring was done. She had blurred vision and she could see only hand movement hence ophthalmology opinion was taken and on examination, the external eye looked normal with normal shape and reaction of pupils. Funduscopic examination revealed a reduced arteriolar caliber and arteriovenous ratio, edema, cotton wool spots right eye (Fig 1), and serous retinal detachment of the left eye (Fig 2). She underwent a cesarean section and a healthy baby was delivered. In the postpartum period, the patient was continued on magnesium sulfate for 24 hours and she

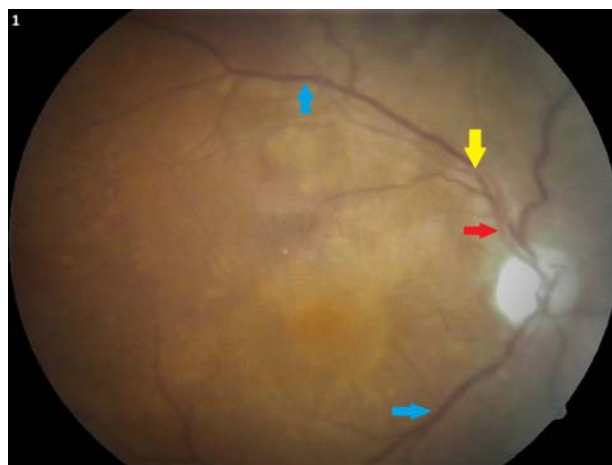


Fig 1 — Reduced arteriolar calibre and arteriovenous ratio (blue and yellow arrows), AV crossing

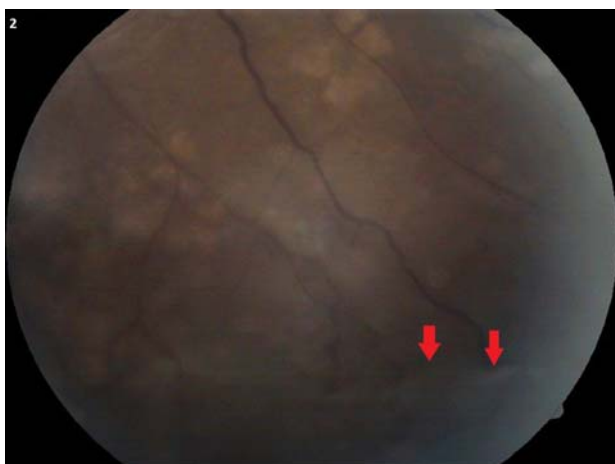


Fig 2 — Arteriolar attenuation, sub-retinal fluid collection with peripheral retinal detachment

was stable with the gradual improvement of vision. Periodic ocular examination showed complete reattachment of the retina in the post-partum period.

#### DISCUSSION

In patients with pre-eclampsia vision is affected in up to 30 to 100%. Blurred vision is the most common symptom followed by Photophobia, spots in the visual field and diplopia and this may be attributed to preeclampsia/eclampsia associated retinopathy which is due to generalized retinal arteriolar narrowing resulting from Central Retinal Artery Vasospasm<sup>3</sup>. This may cause damage to the Retinal and choroidal Vasculature and the Retinal Pigmented epithelium. This ischemic state manifests as reduced arteriolar caliber, reduced arteriovenous ratio, edema, cotton wool spots, peripheral

retinal neovascularization, choroidal neovascularization, macular edema, macular ischemia, and serous retinal detachment<sup>3</sup>, all these can be diagnosed on fundoscopy. Serous retinal detachment occurs in about 1% of cases of preeclampsia. Retinal detachment is caused by the accumulation of serous fluid in the subretinal potential space due to local necrosis of the choriocapillaris and Retinal Pigment Epithelium Secondary to chronic occlusive changes of arterioles and choriocapillaris, arteriolar vasoconstriction, and hyperpermeability of the choroid<sup>4</sup>.

As there is no retinal tear, reattachment surgery is not needed. Instead, the focus of treatment should be on eliminating the underlying cause, which involves maternal stabilization and delivery<sup>5</sup>. Patients with a serous and haemorrhagic Retinal Detachment can be left with extensive degenerative changes in the RPE and Retina following recovery.

#### REFERENCES

- 1 American College of Obstetrics & Gynecologists and P Task Force on Hypertension in, hypertension in pregnancy. Report of the American college of obstetricians and gynecologists' task force on hypertension in pregnancy. *Obstet Gynecol* 2013; **122(5)**: 1122-31.
- 2 Aburymra S — Doenças retinianas da gravidez. In: *Retina e Vítreo. Clínica e Cirurgia*. Sociedade Brasileira de Retina e Vítreo e Conselho Brasileiro de Oftalmologia (Ed). São Paulo: Editora Roca, 2000; 584-5.
- 3 Ryan S, Sadda S, Hinton D, Schachat A, Wilkinson C, Wiedemann P — *Retina*. 6th ed. Elsevier; 2018.
- 4 Kishi S, Tso MO, Hayreh SS — Fundus lesions in malignant hypertension. I. A pathologic study of experimental hypertensive choroidopathy. *Arch Ophthalmol* 1985; **103(8)**: 1189-97.
- 5 Aoyagi R, Hayashi R, Tsuneoka H — Choroidal thickening and macular serous retinal detachment in pregnancy-induced hypertension. *Int Med Case Rep J* 2015; **8**: 291-4.

**Submit Article in JIMA - Online**

**See website : [https:// onlinejima.com](https://onlinejima.com)**

**Any queries : (033) 2237-8092, +919477493027; +919477493033**