

## TEMPORARY BLINDNESS FOLLOWING ECLAMPSIA

by

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In last trimester of pregnancy in rare instances visual disturbance and rise in ocular pressure often associated with toxæmia of pregnancy has been reported. This may result in temporary or permanent damage to the eye resulting in blindness. This sudden blindness may also cause difficulty in diagnosing the condition due to various neurological causes in post delivery period.

### CASE REPORT

S.G., primipara, aged 18 years was admitted on 14-3-1976 at 8.10 P.M. with a history of fits for 3 days. She was treated in a local hospital at Muzaffar Nagar. Fits were not controlled.

On examination the patient was of average built, deeply comatose. Pulse—120—regular; B.P. 150/100 mm. Oedema of feet ++; Heart—was normal. Lungs were full of rales. Abdominal examination showed that height of fundus was full term. Vertex was engaged. Cervix was 80% taken up and it was 3 cms. dilated.

**Investigations:** (1) Haemoglobin: 10 gms. (2) total leucocyte count was 8,800 c.mm.; (3) Differential count was p 60, l 37, e 2, m 1; ESR-55 mm; (4) Serum Creatinine—1.5 mg; (5) Blood urea—20 mgms.

Funduscopy showed general pallor of the fundus and optic nerve head. A.V. ratio was 1:3.5 with gross diminution in the calibre of the arteries. They looked thread like. No haemorrhages and exudates were seen.

To control fits, 100 mgs. pethidine in 5% dextrose was given intravenously. Largectil 50 mg. and Phenargan 25 mg. were injected every 4-6 hours. Inj. Lasix 40 mg. was given to reduce the oedema. On 15-3-1976 at 5.30 a.m. a macerated

female child was born, weighing 3000 gms. The patient continued to have fits even after delivery for another two days inspite of medication. Blood pressure was ranging between 150/110 and 140/90 mms. On 3rd day the fits stopped and the blood pressure stabilized at 140/90.

Ophthalmodynamometry findings when the blood pressure was 150/100 showed as retinal systolic pressure 120 and retinal diastolic pressure 90. Even after blood pressure was stabilized for at 140/90, the retinal pressure was persisting at 115/75.

Patient became conscious on the 4th day but was drowsy under effect of sedation. The same day she complained of loss of vision and was not able to see. Neurological examination did not show any abnormality. Funduscopy examination showed that the arteries were still in spasm and the retinal pressure was 95/65—Repeated ophthalmodynamometric and fundus examination indicated that the pressure readings were unchanged but the spasm of retinal vessels decreased. The patient was given Complamin 150 mg. thrice a day for seven days. Along with this I/M Injection of Neurobion containing B1 B6 and B12 was given. Vision was restored partially after 10 days of treatment. Funduscopy examination showed that the spasm was becoming less and the pallor of disc was disappearing.

### Discussion

From this case report, it would be evident that there has been a considerable disproportionate rise of retinal systolic and diastolic blood pressure as compared to the brachial.

Weigeli *et al* (1954) have pointed out the value of recording retinal arterial pressure to assess the study of intracranial circulation and consider this procedure to be of clinical significance.

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The diagnostic and prognostic significance of retinal diastolic pressure in general state of hypertension has been brought out by a large number of workers, especially Miller and Audouineix (1955) and Pavia (1956).

Agarwal *et al* (1957) and Kolugulu (1955) have stressed on the desirability of including ophthalmodynamometry as a routine technique of investigation in pre-eclampsia with a view to predict the possibility of the development of eclampsia. Agarwal and Malik (1961) also stressed on the prognostic significance of disproportionate rise of retinal pressures when compared to brachial pressures in predicting the intra-uterine death of the foetus. These workers have stated that if there be a disproportionate rise between brachial systolic and retinal systolic i.e. 0.7:1 then there are chances of foetal death and this phenomenon is almost certain to occur if the ratio rises to 0.9:1 (normal 0.54:1). In this case there was temporary blindness when the ratio goes in the neighbourhood of 0.9:1.

There is temporary blindness as in this case and at such pressure the eye changes

show general pallor of fundus and optic nerve head with thread like arteries; the A.V. ratio being reduced to 1:2.5. If this state lasts for a number of days permanent damage may occur. In some cases the temporary spastic changes lead to arteriolar sclerosis. The present case does show a tendency towards permanent changes.

This case reasserts the desirability of ophthalmodynamometry examination as a routine procedure of investigation of the patients in the pre-eclamptic toxæmia in order to avert the damage to the foetus and to save eyes either from temporary or permanent damage.

#### References

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