ANTEPARTUM CORTICAL BLINDNESS

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SYNOPSIS

4 cases of antepartum cortical blindness were seen from 1978 to 1986 at the A Unit, Kandang Kerbau Hospital, Singapore. All 4 had temporary loss of vision. 3 cases had severe pre-eclampsia and one had an eclamptic fit. On follow-up for two years, there were 3 subsequent pregnancies and all were delivered without any recurrence of cortical blindness.

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INTRODUCTION

Antepartum cortical blindness is rarely encountered in obstetric practice. In our experience, 4 cases were seen from 1978 to 1986, an incidence of 1: 17,065 deliveries. It is sudden in onset and is a terrifying experience for both the patient and also for the attending obstetrician who sees it for the first time.

MATERIALS AND METHODS

Clinical Presentation

We have seen 4 cases of temporary cortical blindness associated with pre-eclampsia and eclampsia. Cortical blindness was preceded by prodromal symptoms such as severe throbbing headache and blurring of vision by at least six hours.

The blood pressure varied from 190/110 to 220/130 at the onset of blindness. In all 4 cases there was only light perception when cortical blindness set in. There was no papiloedema. Ocular spasm was present in all cases. The blood pressure was treated with a librium-nepressol drip as described by Lean et al.(1)

Emergency lower segment Caesarean section was performed in every case. The first case was carried out under an epidural anaesthesia because the patient was very frightened and wanted to be conscious at delivery. The minute the baby was delivered she could see the blurred forms of the attending medical staff as compared to her state of mere light perception before the delivery.

The interval between the onset of cortical blindness and delivery varied from 1 to 12 hours. One case refused to give consent to a Caesarean section after she recovered from an eclamptic fit. She was persuaded by her husband to agree to it the following morning. By that time her blood pressure was still 170/120 and her urine output poor.

The complete recovery of normal vision took 6 hours to 24 hours (Table 1) after delivery by Caesarean section.

Every case was examined by an opthalmologist.

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RESULTS

(a) Foetal Outcome (Table II)

There was no perinatal loss. Gross intrauterine growth retardation was noted in one case associated with severe pre-eclampsia.

(b) Maternal Mortality

There was no maternal death

Complete recovery of vision was established within 24 hours of delivery.

(c) Subsequent Pregnancies

3 patients conceived within 2 years after the incidence of antepartum cortical blindness. None had recurrence of the cortical blindness. One developed pre-eclampsia with abruptio placenta at term and required an emergency Caesarean section. It is interesting to note that 2 cases had normal vaginal deliveries in a previous marriage.

DISCUSSION

The first case of cortical blindness was seen at our unit in 1978.(2) A search of the literature showed some interesting observations by other authors. Sommerville-Lange(3) recalled a case of permanent blindness due to toxaemia of pregnancy. He described how a 30 year old woman had transient loss of vision in her third pregnancy, lost the sight of one eye (with marked dimunition in the other) on her fourth pregnancy and became totally and permanently blind on the fourth day after the birth of her fifth child. Her blindness was caused by post neuritic atrophy.

Carpenter, Kara and Plotkin(4) reported one case of permanent blindness attributed to occlusion of the central retinal artery. Ghandi(5) reported a case where normal vision was restored 5 days after delivery. All these cases were associated with pre-eclampsia. As early as 1937, Eastman(6) presented pathological and clinical evidence of vascular involvement in toxaemia of pregnancy.

Wagner(7) reviewed 40 cases of pre-eclampsia and saw spastic changes of arterioles in the retina of 70% of cases.

In our small series, normal vision was restored within 24 hours. It is reported in literature that prolonged occlusion of the central retinal artery by spasm or embolism may cause permanent blindness.

In our limited experience, antepartum cortical blindness is temporary loss of vision due to ocular spasm. It does not seem to recur in subsequent pregnancies.

TABLE 1
RECOVERY OF VISION AFTER DELIVERY

Case No.	Visual Defect	Total Recovery
1	Light perception to blurred vision on immediate delivery of baby under epidural anaesthesia	Total recovery 6 Hours after delivery
2	From light perception before delivery to blurred vision 24 hours after delivery	After 24 hours
3	From light perception before eclamptic fit to blurred vision after eclamptic fit	6 hours after delivery
4	From light perception to blurred vision after delivery	After 24 hours

TABLE 2
FETAL OUTCOME

Case No.	Sex	Birth Weight	Period of Gestation
1	Female	1.94kg	36 weeks
2	Male	2.29 kg	35 weeks
3	Female	1.041kg	32 weeks
4	Male	2.34 kg	38 weeks

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