African Journal of Reproductive Health, ISSN: 1118-4841 **Women's Health and Action Research Centre**

African Journal of Reproductive Health, Vol. 7, No. 2, Aug, 2003 pp. 106-108

Case Report

Bilateral Total Loss of Vision Following Eclampsia - A Case Report

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Code Number: rh03028

ABSTRACT

Visual loss following eclampsia is usually reported to be a result of retinopathy, exudative retinal detachment or cortical blindness. This paper reports the case of a 31-year-old para 5 + 0 housewife who developed bilateral visual loss following eclampsia and presented to the ophthalmologist four weeks later with a vision of light perception in both eyes. Examination showed evidence of hypertensive retinopathy. Convinced that the ocular findings were not responsible for such marked visual loss, she was commenced on systemic, topical and sub-conjunctival injection of steroids, acetazolamide and multivitamins. Her vision improved progressively to 6/6 right eye and 6/9 left eye after three weeks. Obstetricians are advised to refer cases of visual loss following eclampsia promptly to the ophthalmologist who should in turn manage aggressively with systemic, topical and sub-conjunctival steroids. (*Afr J Reprod Health* 2003; 7[2]: 106-108)

RÉSUMÉ

Perte totale bilatérale de la vue suite à l'éclampsie: un compte rendu. La perte visuelle suite à l'éclampsie est souvent signalée comme étant une conséquence de la rétinopathie, du décollement de la rétine exsudative ou de la cécité corticale. Cet article présente le cas d'une femme au foyer âgée de 31 ans, une cinquième pare + 0, qui a commencé à souffrir de la perte visuelle bilatérale suite à l'éclampsie et qui s'est présentée chez l'ophtalmologue quatre semaines plus tard avec une vision de la perception de la lumière dans les deux yeux. L'examen a montré une évidence de la rétinopathie hypertendue. Ayant été convaincu que les trouvailles oculaires n'ont pas été responsables d'une telle grave perte visuelle, on a commencé de la traiter avec la piqure de stéroïdes systémiques, locaux et sous-conjonctivaux, l'acétazolamide et des multivitamines. Sa vision s'est progressivement améliorée jusqu'à 6/6 pour l'oeil droit et 6/9 pour l'oeil gauche au bout de trois semaines. Nous conseillons aux obstétriciens de confier sans délai les cas de perte de la vue suite à l'éclampsie à l'ophtalmologue qui, à son tour, devrait traiter agressivement avec des stéroïdes systémiques, locaux et sous-conjonctivaux. (*Rev Afr Santé Reprod* 2003; 7[2]: 106-108)

KEY WORDS: *Eclampsia, bilateral total loss of vision, steroid medication*

INTRODUCTION

The toxæmia syndrome (eclampsia) includes hypertension, proteinuria, oedema, consumptive coagulopathy, sodium retention, hyper-reflexia and convulsions.¹ The ocular response is that of fulminant hypertensive retinopathy with abundant retinal oedema and exudates², retinal haemorrhages, papilloedema and exudative retinal detachment.³ In eclampsia, the renal element causes the retinal vessels to respond at lower diastolic pressure than in non-toxaemic hypertension.² Visual loss from the retinopathy is usually that of altered acuity and is severe when there is exudative retinal detachment.³ There are few reported cases of central loss of vision presenting as amaurosis or cortical blindness. In these isolated cases, the encephalopathy following the eclampsia causes headache, vomiting, confusion, seizures and cortical blindness, which may become reversible with treatment of the hypertension if the subcortical oedema causing the neurological deficits is not complicated by infarction⁴; and other visual abnormality like amaurosis.^{5,6}

This report presents a case of bilateral total loss of vision in a Nigerian woman following eclampsia, which responded well to steroid and other supportive medications.

CASE REPORT

The patient was a 31-year-old para-5 housewife who was referred to the eye clinic by a peripheral mission hospital some distance away because of bilateral total loss of vision of four weeks duration. She was treated successfully for eclampsia during pregnancy with antihypertensive (hydralazine) and sedative (diazepam). She developed loss of vision

during the episode, which progressively became worse over time. She was referred for ophthalmological consultation four weeks after.

On examination, vital statistics of temperature, pulse and respiration were normal. The blood pressure was 130/90mmHg.

On ocular examination, visual acuity right eye (RE) was good light perception, and left eye (LE) poor light perception. Eye pressures were 19mmHg and 20mmHg in the RE and LE respectively. Pupillary reactions were sluggish but present. The significant ocular fundus findings were extensive retinal haemorrhages, retinal and disc oedemas, and exudates in both eyes. Convinced that the ocular findings were not responsible for such marked loss of bilateral vision, she was immediately commenced on medication comprising 1ml each of sub-conjunctival depomedrol (methyl prednisolone acetate 40mg/ml) and dexamethasone (sodium phosphate 4mg/ml), tabs prednisolone 10mg tid, tabs diamox (acetazolamide) 250mg tid, caps maxivision ocular (multivitamin leuten preparation) tid, dexamethasone phosphate solution 0.1% qid.

Two days later, her vision improved to 6/60 RE and count fingers at 1m LE and intraocular pressures were 12mmHg and 13mmHg RE and LE respectively, while her blood pressure was about the same. Seven days later the vision improved to 6/24 RE and 3/60 LE, but there was no marked change in the ocular fundus findings. Two weeks later her vision improved satisfactorily to 6/9 RE and 6/24 LE and the pupillary reactions were now more brisk. The final refracted vision after three weeks was 6/6 RE and 6/9 LE and a corrected reading vision of N5 in both eyes. She was discharged from the clinic and has since been lost to follow-up.

DISCUSSION

Eclampsia has a maternal mortality rate of 0-14% and it can cause neurological problems through intracerebral haemorrhage.⁷ The ocular findings in eclampsia are fairly common and they are those of hypertensive retinopathy.² However, the cerebral complications are not as common, and less common is reversible cortical blindness following eclampsia. Hinchey J et al⁴, between 1988 and 1994, found only three cases that had reversible cortical blindness following eclampsia. They also pointed out that neuro-imaging showed the findings to be consistent with those of subcortical oedema without infarction, and the cortical blindness reversed in two weeks following anti-hypertensive therapy.

In this report the patient had a post-eclampsia blood pressure of 130/90, which is close to 140/90 and is traditionally defined as hypertension in pregnancy.⁸⁻¹⁰ This shows that she may have had an underlying hypertension during the pregnancy that led to the eclampsia. The post-pregnancy blood pressure of 130/90mmHg is higher than what obtains in Nigerian women with traditionally low blood pressure in the pregnant and non-pregnant

states.^{11,12}

Bocey J⁵ reported two cases of amaurosis during pre-eclampsia in pregnancy, and vision returned to normal three to four days after caesarean section. The above finding is also similar to those of Skenderovic and Pastelek⁶, who found two cases of amaurosis (one case each) in eclampsia and pre-eclampsia, and that vision in both patients responded satisfactorily after caesarean section.

Moderately high dose systemic steroid given to this patient was aimed at assisting resolution of cortical oedema, while the sub-conjunctival injections of dexamethasone and depomedrol were aimed at assisting the resolution of ocular effects of the eclampsia. The satisfactory restoration of vision within few weeks of the steroid and supportive medications is similar to the findings of others that had reversion of cortical blindness in two weeks of anti-hypertensive therapy⁴ and amaurosis after caesarean section.^{5,6} Obstetricians are advised to refer cases of loss of vision in pregnancy, eclampsia and pre-eclampsia promptly to ophthalmologists who should in turn manage the cases actively including use of systemic, sub-conjunctival and topical steroids and anti-hypertensive if necessary.

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