



Listen to your eyes during preeclampsia

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Objective

Preeclampsia (PE) represents a pregnancy induced hypertensive condition and is a major cause of maternal and perinatal morbidity globally. PE involves multiple systems and organs including the visual system (25%). Blurred vision is the most common visual complaint, whereas focal or generalized arteriolar narrowing is the most common ocular finding in PE.

Methods

We aimed to review the published literature in order to investigate the most common visual complications in PE. A Medline databases search was conducted based on English language publications over a 50 year period. PE and visual impairments represent the key words used for this research.

Results

Hypertensive retinopathy is the commonest ocular manifestation of PE, occurring in 60% of patients. Focal arteriolar spasm progressing to general narrowing represent a major fundoscopic finding (50-70%). Prolonged condition results in occlusion of terminal arterioles, as well as increased vascular permeability. Other retinal changes include cotton-wool spots, intraretinal hemorrhages, retinal edema, retinal detachments, Elsching's spots and papilledema. In recent studies almost half of PE cases showed retinal alternations. The majority of them were of Grade I or Grade II according to the Keith Wagener classification. The degree of retinopathy usually correlates with the severity of PE and is more closely related to the degree of underlying vasospasm. The presence of the retinal changes can serve as an indirect marker of severity of PE and of prognostic value. Prognosis of chorioretinopathy in PE is quite good. Prompt treatment of PE (delivery), results in reversal of the ocular manifestations and no specific treatment is required. Furthermore, exudative (serous) retinal detachment is an unusual but well documented ocular complication of PE, affecting 1-2% of patients with severe PE. In these patients, clinicians should take into consideration the presence of the HELLP syndrome (0, 9%), with microangiopathic hemolysis playing a definite role in their development. Prognosis is usually good, and spontaneous resolution usually occurs within few weeks. Medical interventions with antihypertensive drugs and steroids may be effective. As far as the Cortical blindness is concerned, it isoccurrs in 1–15% of patients with severe PE and it is known to be reversible. It is defined as blindness associated with an intact pathway from the eye to the lateral geniculate bodies, occurring in association with normal fundoscopy, normal pupillary light reflex as well as ocular motility. The most common etiology is bilateral posterior cerebral artery infarction. Cortical blindness in PE is usually related to the occurrence of a clinical-neuroradiological entity named Posterior Reversible Encephalopathy Syndrome (PRES). Management includes magnesium sulfate for seizure prophylaxis, antihypertensive therapy, fluid restriction to avoid worsening of edema, as well as neuroimaging. Prompt delivery is curative.

Conclusion

Close monitoring and timing of delivery remain essential in both fetal and maternal outcome, in order to avoid undetected complications.