

IMPORTANCE OF THE EYE EXAMINATION DURING PREGNANCY: PREGNANCY INDUCED HYPERTENSION, DIABETES AND MYOPIA

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Pregnancy induced hypertension, often referred to as toxæmia of pregnancy, includes both preeclampsia and eclampsia. Preeclampsia rarely causes visual disturbances. Eclampsia is, however, a more severe type and is often accompanied by visual problems. Visual symptoms include scotoma, diplopia, dimness in vision, photopsias and headache. In patients with pregnancy induced hypertension an eye exam should be scheduled prior to development of visual symptoms, to check the status of retina and adjust the systemic treatment. The fundus changes seen are: hypertensive retinopathy, choroidopathy and optic neuropathy. The ocular fundus picture in hypertensive retinopathy is related directly to the status of the retinal arteries and the rate of rise and degree of systemic blood pressure. The fundus findings include breakdown of the blood-retinal barrier, cotton-wool spots, retinal haemorrhages, macular oedema and intraretinal microvascular abnormalities. The most widely accepted scheme to stage hypertensive retinal changes is Scheie classification (grade 0-4). In hypertensive choroidopathy local RPE infarcts known as Elshings' spots, irregular filling of the choroid and rarely serous retinal detachments can be seen. In hypertensive optic neuropathy bilateral disc oedema can be found, which may end-up in optic atrophy. Although no specific ocular therapy exists to reverse the changes in pregnancy induced hypertension, eye examination can serve as good monitoring of the effectiveness of blood pressure control. In almost all cases of pregnancy induced hypertension, rapid improvement of eye findings occur after the delivery of the child, although long-term loss of vision secondary to retinal detachment has been seen.

The importance of eye examination is of special importance in pregnant diabetic patients. The obstetricians strive for strict metabolic control in diabetic patients during pregnancy since fewer spontaneous abortions and children with birth defects are born in such cases. However, women who begin pregnancy with poorly controlled diabetes but who then are suddenly brought to strict control frequently have rapid worsening of their retinopathy and do not always recover after delivery. Close follow-up of such patients by both obstetrician and retinal specialist is necessary to prevent severe and untreatable visual loss. In women who begin a pregnancy without retinopathy, the risk of developing diabetic retinopathy is 10%. Further, those who have or who develop systemic hypertension tend to show progression with increased retinal haemorrhages, cotton wool spots and macular oedema. About 4% of pregnant women who have non-proliferative diabetic retinopathy will progress to proliferative disease (PDR) during pregnancy. Therefore, it is of utmost importance that patients with untreated PDR are checked by retina specialist at the onset of pregnancy and treated by panretinal photocoagulation if needed. When treated properly by photocoagulation, patient's retinal status usually does not worsen during pregnancy.

Eyes that have errors greater than 6D are said to have high myopia. The greater the myopia, the more likely complications can threaten vision. There has been concern that patients with high myopia are at a risk of developing retinal tears and retinal detachment as they go through a spontaneous delivery. However, there is no scientific evidence that delivery by itself can promote progression of myopic disease. Regular check-up by retinal specialist is advisable in such patients, especially during pregnancy. Only in cases with pre-existent severe and active retinal degeneration caesarean section may be indicated. Only available treatment for myopic degeneration nowadays is to observe the patient and treat the complications, e.g. by laser photocoagulation.