

## Clinical Image

# Bedside Ocular Ultrasound for Diagnosis of Visual Disturbances in Hypertensive Disorders of Pregnancy

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A 41 year-old woman in her first pregnancy attended our emergency department due to high blood pressure, headaches and visual disturbances. She was taken to the operating room for an emergency caesarean section. In postoperative she developed HELLP syndrome. Due to the persistence of the headaches and visual disturbances, an ocular ultrasound was performed which showed, in both eyes, a laminar hyperechogenic image in the vitreous cavity compatible with bilateral serous retinal detachment (Figure 1). Measurement of the diameter of the optic nerve sheath was similar in both eyes, 5, 4mm in the right eye and 5, 5mm in the left eye, which was indicative of increased intracranial pressure [1-4]. A Cranial CT scan was performed and was normal. In the following days, blood pressure was controlled and the headaches and visual disturbances were no longer present. An ocular ultrasound no longer showed images of retinal detachment nor increased intracranial pressure (Figure 2). We believe that bedside ocular ultrasound is a useful tool in hypertensive disorders that are associated with visual disturbances.

## References

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**Figure 1:** Ocular ultrasound of the right eye: (\*) a laminar hyperechogenic image in the vitreous cavity compatible with retinal detachment. (\*\*) Measurement of the diameter of the optic nerve sheath (taken 3 mm behind the retinal edge) was 5, 4mm which was indicative of increased intracranial. This finding was also seen in the left eye.



**Figure 2:** Ocular ultrasound in the following days with antihypertensive treatment without headaches and visual disturbances. In right eye no showed images of retinal detachment nor increased intracranial pressure, optic nerve sheath was less 5mm, exactly 4, 2mm taken 3mm behind the retinal edge (\*\*). Ultrasound in the left eye was also normal.