

# Bilateral Serous Retinal Detachment and Uterine Atony in Association with Preeclampsia

Şadımın KIYKAÇ ALTINBAŞ<sup>1</sup>, Pınar CENKSOY<sup>1</sup>, Ömer Lütfi TAPISIZ<sup>1</sup>, Emre HEKİMOĞLU<sup>1</sup>, Orhan GELİŞEN<sup>2</sup>

Ankara Turkey

Retinal detachment is the separation of the neurosensory retina from the underlying retinal pigment epithelium. In pregnancy with hypertensive disorders, it is a very rare complication and usually seen bilaterally. Here, a case of bilateral serous retinal detachment and uterine atony in association with preeclampsia seen in the postpartum period of a term pregnant woman with no history of prior hypertension is presented.

**Key Words:** Preeclampsia, Serous retinal detachment, Uterine atony, Obstetric complications

Gynecol Obstet Reprod Med 2012;18:97-98

## Introduction

Retinal detachment is defined as the separation of the neurosensory retina from the underlying retinal pigment epithelium and is a very serious problem usually affecting middle-aged or older people.<sup>1</sup> In pregnancy with hypertensive disorders, it is a very rare complication and usually seen bilaterally.<sup>2</sup> Its pathogenesis still remains unknown but most likely related to the choroidal ischemia secondary to an arteriolar vasospasm.<sup>2</sup> This vasospasm is explained with the placental thromboplastin that may be released into maternal circulation and activate the extrinsic coagulation system resulting with disseminated intravascular coagulation.<sup>3</sup> Here, we want to present a case of bilateral serous retinal detachment and uterine atony in association with preeclampsia seen in the postpartum period of a term pregnant woman with no history of prior hypertension.

## Case Report

A 28-year-old multiparous woman (gravida 3, para 3) with a 38 weeks of gestation admitted to the hospital with a complaint of labour pain. The patient's body mass index was 22.6 kg/m<sup>2</sup> before pregnancy and she gained 12 kg during preg-

nancy. She had no history of smoking or drinking. Hypertension was diagnosed in her genetic family history and no other genetic disorders were detected. Her previous pregnancies were uneventful. Thus far there was no history of preeclampsia or any systemic diseases on her background and all laboratory tests were within normal limits before parturition. The patient delivered a 1820 gr female baby vaginally with an Apgar score of 7 at 1 minute and Apgar score of 9 at 5 minutes after about 3 hours of active labour. Neonatal admission to the neonatal intensive care unit (NICU) was mainly because of prematurity and the neonate was discharged after 4 days of follow-up.

After parturition, sharp curettage was to be performed due to placental retention. On the first hour of postpartum period, systemic hypertension above 180/100 mmHg was detected. The laboratory evaluation revealed 400 mg proteinuria in the urine sample evaluation, at this time thrombocyte count was determined 92000/ $\mu$ L and the severity of thrombocytopenia increased in several hours to 43000/ $\mu$ L. Blood urine nitrogen (BUN) and creatinine were detected 42 mg/dL and 1.7 mg/dL, respectively. Aspartate Aminotransferase (AST) was 44 U/L and Alanine Aminotransferase (ALT) was 22 U/L. The patient's condition was considered to be severe preeclampsia. The patient complained of visual loss and diplopia bilaterally in 1 hour of follow-up. The urgent ophthalmologic evaluation revealed bilateral serous retinal detachments affecting predominantly the peripapillary area (Figure 1).

On the other hand, uterus was hypotonic concurrently. As postpartum hemorrhage was not been able to be controlled with medication, bilateral hypogastric artery ligation and B-Lynch suture were performed by laparotomy in turn to control bleeding. Her hemoglobin concentration was 11.2 mg/dL at admission, 7.3 mg/dL at the beginning of the operation, respectively. During the operation, with a decrease of 5 units in

<sup>1</sup> Department of Obstetrics and Gynecology Etlik Zübeyde Hanım Women's Health Teaching & Research Hospital, Ankara

<sup>2</sup> Department of Ophthalmology Etlik Zübeyde Hanım Women's Health Teaching & Research Hospital, Ankara

Address of Correspondence: Şadımın Kıykaç Altınbaş  
Akpınar Mah. 845. Cad. 27. Sok.  
HillTowers Sitesi B Blok No: 7,  
Dikmen Çankaya, Ankara  
sadimanaltin@gmail.com

Submitted for Publication: 24. 02. 2011

Accepted for Publication: 30 05. 2011

hemoglobin concentration, the patient received 5 units of red blood cell transfusion and 5 units of fresh frozen plasma. In spite of all these procedures, hysterectomy was to be performed at last to control hemorrhage. The postoperative period was uneventful and the mother tolerated the operation without any serious complications. Serious retinal detachment regressed spontaneously in the third day of postpartum period. She was discharged at the 7<sup>th</sup> day of postoperative period. Complete regression of the retinal detachments was observed within 2 weeks with epithelial pigment changes and the patient had her recovery of vision without any serious complications.

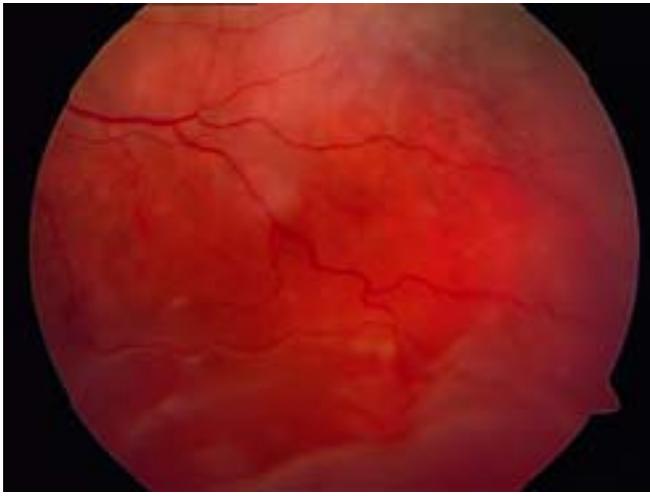


Figure 1: Serous retinal detachments affecting the peripapillary area on the 1-hour of postpartum period.

## Discussion

Hypertension affects both the mother and the newborn to varying degrees. Preeclampsia is a pregnancy specific disease with unknown causes that affects approximately 5% of all pregnant women and still remains a leading cause of maternal and perinatal morbidity and mortality.<sup>4</sup> In a patient with preeclampsia, maternal and perinatal outcomes may differ by multi-organ involvement with different clinical features including renal, cerebral, hepatic disorders with life threatening results.

Although the visual system can be affected in 30-100% of the preeclamptic patients, one of the least affected end-organ is retina.<sup>2</sup> Wide ranges of ocular manifestations resulting from preeclampsia as retinopathy, serous retinal detachments, optic neuropathy and occipital cortical changes were reported in the literature.<sup>5</sup> Serous retinal detachment affecting 0.2-2% of severe preeclamptic patients is to be considered as a rare but notable complication with the risk of permanent blindness.<sup>6</sup> But in most cases, the detachment regresses in parallel to regres-

sion of the toxemia without any serious damages. Spontaneous serous retinal detachment may occur both at antepartum and postpartum periods and resolves with a return to normal visual function within the first few weeks postpartum.<sup>7</sup> This case illustrates that when the patient develops another obstetric complication such as uterine atony which is the most common cause of postpartum hemorrhage, it could be a more complex situation to succeed in.

In conclusion, it should be kept in mind that preeclampsia is a complex, multi-organ affected disease that patients should be managed more carefully both at antepartum and postpartum periods including detailed ophthalmologic examination.

## Preeklampsi ile İlişkili Bilateral Seröz Retina Dekolmanı ve Uterin Atoni

Retina dekolmanı nörosensör retinanın, altında bulunan retina pigment epitelinden ayrılmasıdır. Hipertansif bozuklukla seyreden gebeliklerde bu durum çok nadir rastlanan bir komplikasyondur ve çoğunlukla bilateral olarak görülür. Burada, önceki hikayesinde hipertansiyon öyküsü bulunmayan termdeki bir gebe hastada postpartum dönemde preeklampsi ile ilişkili bilateral seröz retina dekolmanı ve uterin atoni vakası sunulmuştur.

**Anahtar Kelimeler:** Preeklampsi, Seröz retina dekolmanı, Uterin atoni, Obstetrik komplikasyonlar

## References

1. Yanoff M, Duker JJ. Ophthalmology, 2<sup>nd</sup> ed. St Louis, USA: Mosby 2004:982-9.
2. Prado RS, Figueiredo EL, Magalhães TVB. Retinal Detachment in Preeclampsia. Arq Bras Cardiol. 2002; 79:185-6.
3. Bjerknes T, Askvik J, Albrechtsen S, Skulstad SM, Dalaker K. Retinal detachment in association with preeclampsia and abruptio placentae. Eur J Obstet Gynecol Reprod Biol 1995;60:91-3.
4. Steegers EA, von Dadelszen P, Duvekot JJ, Pijnenborg R. Pre-eclampsia. Lancet 2010;376:631-44.
5. Valluri S, Adelberg DA, Curtis RS, Olk RJ. Diagnostic indocyanine green angiography in preeclampsia. Am J Ophthalmol 1996;122:672-7.
6. Moseman CP, Shelton S. Permanent blindness as a complication of pregnancy induced hypertension. Obstet Gynecol 2002;100:943-5.
7. Tranos PG, Wickremasinghe SS, Hundal S, Foster KS, Jagger J. Bilateral serous retinal detachment as a complication of HELLP syndrome. Eye 2002;16:491-2.