

Okluzija retinalne arterije kod trudnice

Retinal artery occlusion in a pregnant patient

Tatjana S. Šarenac Vulović¹, Dejan D. Vulović², Mirjana A. Janićijević-Petrović¹, Svetlana S. Paunović¹, Katarina M. Janićijević²

1. Klinika za oftalmologiju, Klinički centar "Kragujevac", Kragujevac
2. Fakultet medicinskih nauka, Univerziteta u Kragujevcu, Kragujevac

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Tatjana S. Sarenac Vulovic¹, Dejan D. Vulovic², Mirjana A. Janicijevic Petrovic¹, Svetlana S. Paunovic², Katarina M. Janicijevic²

1. Clinic of Ophthalmology, Clinical Centre "Kragujevac", Kragujevac, Serbia
2. Faculty of Medical Science, University of Kragujevac, Kragujevac, Serbia

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APSTRAKT

Okluzija retinalne arterije je vrlo retka kod osoba mlađih od 30 godina, posebno ukoliko imaju prisustvo predisponirajućih faktora. Smanjenje vidne oštine je vrlo retko kod trudnica, a češće se sreće u stanju eklampsije ili nekih hematoloških i kardioloških poremećaja.

Na Kliniku za oftalmologiju Kliničkog centra "Kragujevac" je primljena prvorotka stara 26 godina u 31. nedelji trudnoće sa iznenadnim gubitkom vida na desnom oku, u ranim jutarnjim satima. Pregled očnog dna je ukazivao na spazam centralne retinalne arterije. U ovakvim stanjima neophodno je sprovesti hitno oftalmološko, ginekološko i hematološko ispitivanje.

Možemo da zaključimo da ovakva stanja su vrlo retka i da mogu da se očekuju kod trudnica sa hipotenzijom, poremećenim lipinim statusom i blagom anemijom. Rani terapijski tretman može da bude koristan u borbi za poboljšanje vidne oštine.

Ključne reči: trudnoća; retinalna arterija; spazam.

ABSTRACT

Retinal artery occlusions are rare in people younger than 30 years, and the great number of them has detectable etiological disorder. Visual acuity disturbances in pregnant women were documented infrequently and in the simultaneous presence of toxemia during pregnancy or with some hematological or heart disorders.

A 26-year old woman-primigravida at 31 weeks' gestation presented with sudden decreased vision in her right eye early in the morning. Fundus examination indicated for retinal arterial spasm. Complete blood examination, obstetric and internal examination must be performed in such cases.

We can conclude that this case is preliminary experience and that we can expect retinal arterial occlusion in pregnant patients with hypotension, disturbed lipid profile and mild anemia. Early effective treatment can be useful in the struggle for vision gain.

Keywords: pregnancy; retinal artery; spasm.

KORESPONDENCIJA / CORRESPONDENCE

Tatjana Šarenac, Zmaj Jovina 14/30, 34000 Kragujevac, Tel. 062219915, E-mail: tvoja.tanja@yahoo.com

Tatjana Sarenac, MD, Zmaj Jovina 14/30, 34000 Kragujevac, Serbia, Phone. +38162219915, E-mail: tvoja.tanja@yahoo.com

INTRODUCTION

Retinal artery occlusions are rare in people younger than 30 years, and the great number of them has detectable etiological disorder.¹ Generally, retinal artery occlusion is a disease of the old age associated with atherosclerotic plaques.² Visual acuity disturbances in pregnant women were documented infrequently and in the simultaneous presence of toxemia during pregnancy or with some hematological or cardiological disorders.²

CASE REPORT

A 26-year old woman - primigravida at 31 weeks' gestation was referred to our Clinic with sudden decreased vision in the right eye early in the morning, one day before the hospitalization. She had no history of ocular disease. Her only history of systemic disease was regular. She had no problems associated with her pregnancy. Visual acuity on the right eye was loss of light perception with presented afferent pupilar defect, and on the left eye it was quite normal. Intraocular pressure measurements were 8mmHg in the right eye and 14 mmHg in the left eye. The anterior segments and lenses of both eyes were unremarkable. Fundus examination of the right eye showed a pale retina along the infratemporal vascular arcade associated with diffuse macular edema, with infratemporal branch of retinal artery as thin red fade line (Fig.1.a). The pigmented scare in infratemporal region was nearby the spasm localization. The scare was old retinal change; probably of toxoplasmatic etiology. Fundus of the left eye had no changes (Fig.1.b). OCT findings indicated for ischemic macular edema with no active satellite nearby the scare.

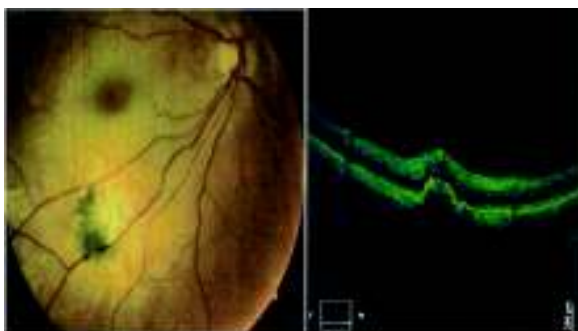


Figure 1a). Photo fundus and OCT findings a) right eye

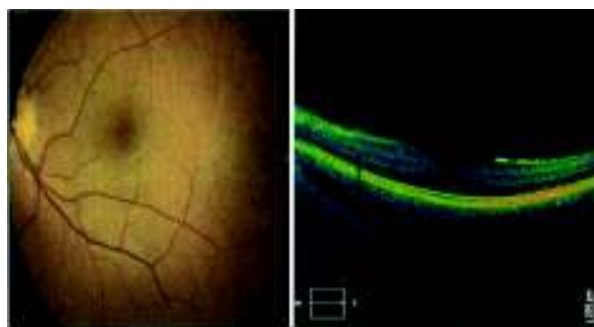


Figure 1b). Photo fundus and OCT findings b) left eye

Patients blood pressure was 100/60 mmHg and the weight gain was 8kg. Obstetrics and internal medicine consultations were also obtained. Laboratory studies included a complete blood count, erythrocyte sedimentation rate, platelet count, prothrombin time, activated prothrombin time, bleeding time, lipide profile, plasma fibrinogen, C-reactive protein and some immunological examinations - antinuclear antibody, levels of immunoglobulins (IgG, IgM and IgA for *Toxoplasmosis gondi*), antimitochondrial antibody.

Laboratory workup was regular, except for erythrocyte sedimentation rate, fibrinogen, and disturbed lipid profile, increased C-reactive protein and mildly exposed anemia. Quantitative immunoglobulins were within normal limits.

We performed treatment with consultation of gynecologist with hyperosmotic solutions (sol. Manitol 250ml 20%, i.v., per 12 hours for three days) and digital massage of the eyeball with ocular beta-blocker usage. Next morning visual acuity of our patient improved to 0.5/ 60 m. After three days visual acuity was 0.2 - 0.3.

DISCUSSION

Blindness in most cases originates from retinal abnormalities, vascular lesions and detachment. Occlusion of the retinal artery with vasospasm is accompanied with delayed painless and deep blindness with premonitory signs of visual disturbances. But, occlusion of retinal artery attributed to embolism is associated by sudden blindness. An embolus like occlusion reason is less common than thrombus; the latter is being the result of disorder such as endarteritis or atherosclerosis.¹

Brown et al., reported two pregnant patients with retinal artery occlusion and with history of migraine and one with increased factor VIII activity.¹ Only two cases of preg-

nant patients with branch retinal occlusion were reported and associated with amniotic fluid embolism during abortion or induction of delivery. Retinal artery occlusion is accompanied by atherosclerosis, hypertension, diabetes mellitus, and vascular spasm as in migraines, hypercoagulable states, glaucoma or trauma.²

In 1995. Cunningham et al., experienced blindness in almost 15% of eclamptic women. He presented 13 women with pure cortical blindness and two of them had retinal detachment. In each case, visual acuity returned in four hours to eight days.³

Retinal artery occlusion is very rare at young ages. The mean age of the patients with retinal artery occlusion is 58.5.⁴

Preeclampsia can be characterized by severe generalized or segmental spasm of retinal arteriolas.⁵ The areas of nonperfusion of arterial and venous occlusive may also develop.⁶ Our patient did not have hypertension, proteinuria or generalized body edema. So, preeclampsia was not the reason for impaired vision.

Peripartum cardiomyopathy can be the main reason for vision loss in pregnant patients.⁷

Vascular retinal occlusions can be reported in relation with thrombophilia with increased haematocrit, elevated levels of lipoprotein and erythrocyte aggregation rate. Malignancy, pregnancy, oestrogen therapy and paroxysmal nocturnal therapy have all been associated with retinal vascular disease.⁸

According to references, visual prognosis may reinstate with embolus dislocation or spasm's relief within one hour. Lasting time, localization and percentage of obstruction are important for visual prognosis. In patient with retinal artery obstruction whole retina is affected, but in patients with cilioretinal branch occlusion macula and optic nerve head are functional.⁹

Sudden vision loss can be associated with retinal detachment in pregnancy-induced hypertension, but full spontaneous resolution has been achieved without sequel at all patients.¹⁰

Concerning the primary mechanism in obstruction in our case, arterial spasm was the main reason for visual loss. Patients with hypotension, lipid profile disturbances and mildly exposed anemia have risk factor for arterial spasm.

Treatment of these patients is very complicated because of pregnancy. In most cases the urgent therapy give poor vision gain. Early diagnosis can lead to a more effective treatment and limit the extent of the disturbances of vision.

We conclude that this case is preliminary experience and that we can expect retinal arterial occlusion in pregnant patients with hypotension, disturbed lipid profile and mild anemia. Early effective treatment can be useful in the struggle for vision gain.

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