DECOMPRESSION RETINOPATHY WITH MACULOPATHY AFTER TRABECULECTOMY WITH MITOMYCIN C

RETINOPATÍA POR DESCOMPRESIÓN CON MACULOPATÍA TRAS TRABECULECTOMÍA CON MITOMICINA C

JUBERÍAS JR1, MAQUET JA1, USSA F2

RESUMEN

Caso clínico: Se presenta un caso de retinopatía por descompresión caracterizado por hemorragias retinianas, edema de papila, edema macular y disminución brusca de la agudeza visual en el postoperatorio inmediato de una trabeculectomía con mitomicina C.

Discusión: La retinopatía por descompresión es una complicación que aparece con poca frecuencia tras la cirugía de glaucoma. Aunque estas características han sido descritas en la literatura de forma separada, en el presente artículo se describen de manera conjunta en un solo caso clínico.

Palabras clave: Glaucoma, retinopatía por descompresión, hemorragias, maculopatía, trabeculectomía.

ABSTRACT

Case report: We present a case of decompression retinopathy with retinal haemorrhages, optic nerve haemorrhages, maculopathy, and decreased visual acuity after trabeculectomy with mitomycin-C.

Discussion: Decompression retinopathy is a potential complication after glaucoma surgery but has been rarely reported in the world literature. Although these four characteristics have been described separately, in this patient all four occurred together (Arch Soc Esp Oftalmol 2008; 83: 373-376).

Key words: Glaucoma, decompression retinopathy, haemorrhages, maculopathy, trabeculectomy.

INTRODUCTION

Decompression retinopathy is a complication following trabeculectomy described by Fechtner in 1992 (1). The clinical situation immediately following surgery is characterized by the appearance of diffuse retinal hemorrhages and papilla edema, together with a decrease in visual acuity. Outcome is good with spontaneous resolution in a matter of weeks.

There are only a few published cases of decompression retinopathy. Although the original article describes it as a complication following trabeculectomy (1,2), cases have been reported where it follows medical treatment or other surgical techniques (3).
In 2006, Bui et al. published a case in which they describe maculopathy as an additional characteristic of decompression retinopathy (4). However, in the case presented by Bui et al., papilla edema, one of the characteristics of decompression retinopathy, was not present.

CASE REPORT

A 26-year-old male with a history of hypertensive uveitis from herpes simplex in the left eye. The corrected visual acuity in the right eye is 1 and in the left eye, 0.05. Ocular pressure was 14 mmHg in the right eye and 55 mmHg in the left with oral treatment using acetazolamide and topical treatment using timolol and brimonidine. The anterior segment only presented corneal edema in the left eye. The papillary cup is 0.2 in the right eye and 0.9 in the left eye. Faced with the impossibility of controlling the intraocular pressure, a trabeculectomy with mitomycin C was performed on the left eye (0.4 mg/ml, for two minutes).

Immediately following surgery a diffuse filtration appeared, with a narrow anterior chamber (grade I athalamia) from excess filtration. Intraocular pressure was 15 mmHg. Funduscopy revealed multiple deep, round hemorrhages affecting the posterior pole, papilla edema with a decrease in the papilla cup index prior to surgery and a macular edema (fig. 1). The patient did not mention any worsening of visual acuity in the left eye. However, it was observed that his vision was decreased when having to count fingers at a distance of two meters.

Given this situation, a suspected diagnosis of decompression retinopathy was proposed. At the Uveitis Unit, tests were done to rule out other causes of retinitis, all of which were negative. A retinal venous occlusion and the possibility of a prior Valsalva maneuver were also ruled out clinically.

Treatment following surgery was with topical dexamethasone and atropine and oral famciclovir as prophylaxis. The depth of the anterior chamber returned to normal during the second week. During the first two months, the progress following surgery was satisfactory, with intraocular pressures steady at 10 and 14 mmHg. The localized hemorrhages in the posterior pole, the papilla and macular edemas spontaneously recovered during this time (fig. 2), reaching a visual acuity of 0.125.

DISCUSSION

In the case reported, all the characteristics of decompression retinopathy described above appeared together, whereas they appear partially in other
case reports: retinal hemorrhages, papilla edema, macular edema and decreased visual acuity. Even though imaging techniques were not used, the bi-microscopic study of the posterior segment corroborated the findings recently published on the presence of maculopathy associated with decompression retinopathy (4). It is important to point out that our patient did not subjectively suffer a decrease in visual acuity despite the existence of papilla and macular edemas. This is explained by poor vision (0.05) prior to surgery in that eye and the good vision in the other eye (1), which did not allow him to perceive a decrease in visual acuity in the eye operated on when counting fingers at two meters. This is why we believe it is very advisable for a complete funduscopic exam to be carried out on those patients undergoing trabeculectomy or other hypotensive techniques with low pressures immediately following surgery, especially when the previous pressures are very high and if the previous vision is poor, since, in these cases, decompression retinopathy may go unnoticed.

In most of the articles published on decompression retinopathy, differential diagnosis involves retinopathy associated with Valsalva maneuvers and venous occlusion. In our case we believed it to be opportune to include other retinitis causes, due to the patient’s history of uveitis. Lastly, we should mention the differential diagnosis together with ocular ischemic syndrome (5) that, in our case, was ruled out due to age and absence of the general pathology in the patient.

To summarize: in the clinical case reported, all the signs characterizing decompression retinopathy (retinal hemorrhages, papilla edema, macular edema and decreased visual acuity) appeared in a single patient. Furthermore, the differential diagnosis excluded venous occlusion, retinopathy from Valsalva maneuvers and other retinopathies.

REFERENCES