Management of an uveal effusion in nanophthalmos, a case report.

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PURPOSE: Nanophthalmos is a rare congenital disease characterized by a very short eye (axial length 14 to 20.5 mm), microcornea and lens with normal volume so disproportionate to the small size of the eye and scleral thickening. The incidence of angle closure glaucoma is higher.

METHODS: We report the case of a 52-year-old man referred for treatment of a bilateral uveal effusion with an isolated severe and bilateral nanophthalmos.

RESULTS: The axial length on the right eye was 15.09 mm and 15 mm on the left eye, visual acuity was limited to 2.3 for the right eye and 2 for the left eye (LogMAR scale). The examination of the anterior segment revealed a very narrow anterior chamber on both eyes (1.65 mm for the right eye and 2.02 mm for the left eye). (OCT Visante Zeiss).

The ocular fundus highlighted a complete exsudative retinal detachment for both eyes especially for the right eye with the retina behind the lens. The intraocular pressure was 13 mmHg for the right eye and 18 mmHg for the left eyes respectively. The patient had a medical history of recurrent uveal effusion effectively treated by sclerectomy in nasal and temporal quadrants associated with eye drop corticosteroids in the right eye and by sclerectomy in four quadrants with systemic corticosteroids in the left eye.

He underwent an equatorial sclerectomy in supero nasal and supero temporal quadrants for the right eye without intraoperative complications.

We have realized equatorial sclerectomy. 5X7 mm and 2/3 of thickness scleral (1, 2, 3, 4, 5) in supero nasal quadrant.

Superficial scleral flap was sutured (6). The same technique was performed in supero temporal quadrant (7, 8).

There was an aqueous humor flow through the surgical site. (4, 5, 8). Postoperative eye, anterior chamber was deeper. (9)

Because of the left eye already benefit a complete chirurgical treatment and uveal effusion was chronic, we introduced eye drop of corticosteroids. They have shown some efficacy in this indication.

At one month, postoperative course was simple, the anterior chamber was deeper in right eye (2.1 mm, OCT Visante Zeiss), intraocular pressure was 10 mmHg and fundus found a decrease of the exsudative retinal detachment in both eye, especially in right eye.

CONCLUSION: Sclera allowed to pass albumin, gamma globulin and dextran, the porosity is at the origin of the uveoscleral outflow that participate in maintaining the balance of intraocular pressure. Nanophthalmos eyes are characterized by a thicker sclera and an altered metabolism of glycosaminoglycans disrupting the uveoscleral outflow. Cilio choroidal detachment is common and occurs spontaneously. The equatorial sclerectomy is then of major interest. It creates a surgically scleral transudation of aqueous humor and restore the physiological intraocular pressure gradient. Nanophthalmos has a very poor visual prognosis due to frequent spontaneous uveal effusions; the equatorial sclerectomy is the treatment of choice in these patients.

References