

4. IMPLANTATION STEPS OF THE ANTIGLAUCOMATOUS SHUNT WITH VALVE. EXPERIMENTAL STUDY

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Introduction. Antiglaucomatous shunt with valve represents a device for controlling intraocular pressure (IOP). This drainage device is made from polymethyl methacrylate (PMMA), a biocompatible material with ocular tissue. It is almost 4.0mm, with an external lumen of 3.5mm and an internal of 1.0mm. The shunt has a valve that removes excess aqueous humor (AH) from the anterior chamber (AC) depending on the IOP, 2 spur-like extensions to prevent extrusion and an external disc.

Case presentation. The filtration surgery was done on New Zealand rabbits, under general and local anesthesia.

Discussion. A limbal-based conjunctival incision is performed to get exposure to the sclera. A scleral flap is formed at 12 o'clock with a 2/3 from its thickness. At the base of the flap is made a 1.5mm incision with the implantation of the antiglaucoma shunt with valve. The shunt is placed in the AC with avoidance of getting contact between the device, cornea, and iris. The scleral flap is sutured and the conjunctiva is closed with the surgeon's suture of choice.

Conclusion. The technique of implantation is a simple one, that allows being performed with minimal damage to the eye tissue and exclusion of complications such as hypotony, erosion, and extrusion of the implant.