P5.10

Secondary subconjunctival implantation of biodegradable porous collagen matrix for treating ocular hypotony following trabeculectomy with mitomycin C

Thomas Dietlein[1], Andre Rosentreter[1]
[1]*Dept. Ophthalmology, Köln - Germany*

Purpose: Porous biodegradable collagen matrix has been used as a subconjunctival implant during primary trabeculectomy in order to modify filtering bleb scarring and to control early transscleral filtration around the flap. Ocular hypotony following filtering surgery may cause severe visual complications and is usually treated by injection of viscoelastics in the anterior chamber or blood into the filtering bleb, by (transconjunctival) flap sutures or even by using scleral or pericard patches. In order to overcome ocular hypotony and to avoid subsequent failure of the filtering bleb we implanted porous collagen matrix in the filtering blebs of hypotonous eyes.

Methods: In a consecutive patients series we report on 10 patients that underwent secondary subconjunctival implantation of collagen matrix to treat hypotony-related complications following trabeculectomy with mitomycin C. The period between trabeculectomy and secondary implantation of porous collagen matrix ranged between 3 weeks and 15 months. In 9 of 10 patients other surgical interventions to treat ocular hypotony had already been undertaken.

Results: Implantation could be performed without intraoperative problems under subconjunctival anesthesia in all patients. One patient had a severe initial postoperative pressure spike (50 mmHg), one patient had a secondary implant exposition that required conjunctival coverage some weeks later. Mean increase of intraocular pressure (IOP) after collagen matrix implantation was 6 mmHg, visual improvement was seen in all patients, two patients required additional topical antiglaucomatous medication to control the IOP during the follow-up.

Conclusion: Biodegradable porous collagen matrix may be a helpful tool to treat ocular hypotony following trabeculectomy with mitomycin C and to avoid complete closure of the fistula.