

Block-excision of cystic epithelial downgrowth as the treatment of choice

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Eye (2005) 19, 1. doi:10.1038/sj.eye.6701481

Cystic or diffuse epithelial downgrowth into the anterior chamber after trauma or intraocular surgery is a rare complication. The correct first therapeutic approach determines the survival of the eye. Direct manipulation of the cyst wall may lead to a transformation from cystic to diffuse invasion, resulting in irreversible glaucomas and loss of the globe.^{1–3}

A number of therapies have been tried to treat those eyes: ‘peeling’ of the cyst wall, photocoagulation, or injection of epitheliotoxic solutions.^{4,5} The very intimate connection between epithelial cells, trabecular meshwork, ciliary band, iris surface, and corneal endothelium always occurs with involvement of the angle.^{1–3} In view of these ophthalmopathologic details, it is impossible to peel this very delicate cystic wall. The cyst wall consists of only a few up to 12 layers of stratified epithelium.⁶ The alcohol injection technique⁵ leads to incomplete destruction of the thicker layers of intraocular epithelial cells and/or severe intraocular irritation. Laser coagulation frequently results in an opening of the cyst with spreading of epithelial cells into all of the anterior segment structures, – this option leads to disastrous surgical outcome.^{2,4}

The curative approach is a blockexcision of cystic epithelial downgrowth involving the angle—using all adjacent tissue of cornea, sclera, pars plicata of ciliary body, and iris as a ‘shell’.^{1–3,7} The resulting defect of the globe is then closed by a tectonic corneoscleral graft. This in our experience is the treatment of choice if the cyst involves less than five clock hours of the circumference.^{1–3,7} In our consecutive series (1980–2003) of 59 referred patients with epithelial ingrowth, no recurrence was observed, and no enucleation after blockexcision was needed (mean follow-up: 69 months).^{1–3,7} In view of the extent of the procedure, the loss of only one line of visual acuity

is acceptable. Only two eyes developed hypotony after excisions involving more than 150°.

Cystic epithelial downgrowth enlarges slowly over time, probably because of the corneal endothelial cover.^{7,8} If a donor corneoscleral graft for tectonic wound closure is not available, the use of syngeneic auricular cartilage appears to be an interesting alternative. Cartilage as a primary avascular tissue containing collagenous fibres might offer the advantages of no graft reaction because of its syngeneic nature. Long-term results need to be evaluated. The technique, described by Ganesh *et al* in this issue of ‘Eye’, potentially offers a promising new surgical approach for closure of defect in the eyewall following blockexcision for epithelial ingrowth.

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