

Aims To investigate glaucoma treatment options in patients who underwent PK for advanced AK.

Methods A retrospective case-series review of patients who underwent PK for AK and were diagnosed with intraocular hypertension or glaucoma. Inclusion criteria included a diagnosis of AK confirmed by positive confocal microscopy or culture, PK for advanced AK, a diagnosis of glaucoma or ocular hypertension post-PK, and a minimum follow-up period of five years or achieving endpoints such as no perception of light vision, phthisis bulbi, or enucleation. Exclusion criteria consisted of a prior glaucoma or ocular hypertension, insufficient follow-up, or failure to meet the required endpoint.

Results 271 PKs were investigated, of which six eyes (six patients) met inclusion criteria. Three patients underwent therapeutic surgery, while three had optical grafts for corneal scarring. Additionally, three patients received treatment with topical medication. One patient had cataract extraction with anterior synechiolysis, another required trabeculectomy, and one patient underwent Ahmed valve implantation. Early graft failure, the necessity for glaucoma surgery, poor visual outcomes, or the need for evisceration have been linked to more severe initial infections, co-existing infections, or reactivation of keratouveitis.

Conclusion The management of glaucoma patients who underwent PK for AK can be complex, and outcomes depend on many factors. Currently, no comparative data is available on managing these patients. This comparative case series provides the first evidence for various treatments and compares them with the available literature.

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ANTERIOR SEGMENT OCT IN FUNGAL KERATOPATHY FOR EFFECTIVE THERAPEUTIC KERATOPLASTY

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Introduction Fungal keratitis (FK) presents significant challenges in management due to its high risk of vision loss. Delayed diagnosis and limited efficacy of ocular medications often necessitate a combination of topical and systemic antifungal therapies alongside surgical interventions, such as therapeutic keratoplasty.

Methods We conducted a retrospective case series study examining the surgical management of FK at the Eye Unit, Southampton General Hospital, over a 12-month period. Anterior segment optical coherence tomography (AS-OCT) was used to guide therapy and optimize surgical timing.

Results Three cases of FK were managed surgically:

Case One: Presented with impending corneal perforation confirmed via AS-OCT. The patient underwent full-thickness keratoplasty but experienced graft failure nine months later, requiring re-grafting.

Case Two: Presented with corneal perforation requiring urgent corneal gluing, followed by therapeutic penetrating keratoplasty guided by AS-OCT. Vision improved from hand motion to counting fingers.

Case Three: Presented with bilateral FK without stromal thinning or perforation. AS-OCT assessed infection depth, guiding superficial keratectomy in both eyes and deep anterior

lamellar keratoplasty (DALK) in the right eye. Vision improved to 6/60.

Conclusion AS-OCT is a valuable tool for guiding surgical timing and approach in FK management. Its integration with medical therapies facilitates effective therapeutic clearance of fungal infections, preserves ocular integrity, and stabilises or improves vision in severe FK cases.

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OPTIMISING THE RESULTS OF PTERYGIUM SURGERY: A REVIEW OF CURRENT SURGICAL APPROACHES

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Background Pterygium is a prevalent condition worldwide that can lead to impaired vision due to astigmatism, inflammation, irritation, or encroachment on the visual axis. Various surgical interventions are available for the primary excision and reconstruction of the ocular surface. Two standard surgical techniques are primary excision with conjunctival autograft transplantation (CAT) and primary excision with amniotic membrane transplantation (AMT), with or without adjunctive treatment with mitomycin C. This study evaluates these two techniques concerning their recurrence rates, effects on visual acuity, and influence on aesthetic appearance.

Methods We used PubMed to identify studies comparing the outcomes of CAT and AMT for individuals undergoing pterygium surgery, including both primary and recurrent cases. The primary outcome measured was recurrence, and only studies with a minimum follow-up period of six months were included for 13 studies.

Results A total of 13 studies involving 1,272 eyes were analysed. AMT was performed on 549 eyes, while CAT was applied to 723 eyes. Among the eyes treated with AMT, 132 (24.0%) experienced a recurrence of pterygium compared to 69 eyes (9.5%) treated with CAT. Several studies showed improvements in post-operative visual acuity, corneal topography and cosmesis.

Summary AMT exhibited a higher recurrence rate than CAT. However, the use of intraoperative adjuncts, such as mitomycin C, has further reduced the recurrence rate for patients undergoing either surgical procedure, as well as enhancing vision and cosmesis.

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OFF-CENTRED DMEK GRAFTS: IMPACT AND RESOLUTION

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Purpose The aim of this study was to report the outcomes of Descemet membrane endothelial keratoplasty (DMEK) off centred compared with descemetorhexis.

Methods This is a retrospective case series of DMEK between June 2022 and July 2023. In this period, 8 DMEK presented with post-operative decentration of graft with gap between the graft and the descemetorhexis edge.