A glaucoma drainage device may be more effective than trabeculectomy in lowering IOP after keratoplasty, but is more likely to result in graft failure.

The Science behind the Tip

A well-controlled intraocular pressure (IOP) after penetrating keratoplasty (PK) is essential for graft survival and to prevent endothelial cell loss. However, raised IOP is a common consequence of this surgery, particularly in patients with pre-existing peripheral anterior synechiae or a preoperative diagnosis of glaucoma. Obtaining accurate IOP measurements after PK can be difficult and may result in a delay in recognising this complication.

A recent retrospective case series comparing the outcomes after trabeculectomy and mitomycin C with glaucoma drainage device (GDD) implantation after PK, concluded that the IOP was significantly more likely to be lower than 22mmHg in the GDD group at the last visit (86.7% vs 64.3%, p = 0.04). Although the IOP was more likely to be controlled at 3 years after GDD implantation, the probability of graft failure was higher (52.6% vs 67.7%, p = 0.54).

References

