

Calcineurin Inhibitor in Corneal Transplantation

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Objective: To evaluate the long-term efficacy and safety of topical calcineurin inhibitor, tacrolimus 0.003% suspension for the management of steroid-induced ocular hypertension post-penetrating keratoplasty (PK).

Design: A Retrospective Study.

Setting: Magrabi Aseer Eye Hospital, Khamis Mushait, Saudi Arabia.

Method: Twenty primary keratoplasties (primary PK) performed between 1 January 2012 and 31 December 2015 were included in the study. Prednisolone was replaced with tacrolimus 0.003% suspension after intraocular pressure (IOP) elevation. Primary outcome measure was immunologic graft rejection episodes and secondary outcome measures were pre and postoperative best-corrected visual acuity (BCVA).

Result: Twenty patients with keratoconus were included in the study; 12 (60%) were males and the mean age was 27 years. There were no reports of graft rejection or patients requiring glaucoma surgery. Tacrolimus was well tolerated; however, all patients reported a mild transient burning sensation in the eye during application. At the final follow-up, tacrolimus was tapered for all patients.

Conclusion: Topical tacrolimus 0.003% suspension is an effective second-line immunosuppressant for the management of primary, normal-risk corneal grafts in patients who are steroid responders.