World Academy of Science, Engineering and Technology
International Journal of Health and Medical Engineering
Vol:16, No:08, 2022

Xenografts: Successful Penetrating Keratoplasty Between Two Species

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Abstract : Corneal diseases are one of the main causes of visual impairment and affect almost 4 million, and this study assesses the effects of deep anterior lamellar keratoplasty (DALK) with porcine corneal stroma and postoperative topical treatment with tacrolimus in patients with infectious keratitis. No patient was observed with clinical graft rejection. Among the cases: 2 were positive to fungal culture, 2 with Aspergillus and the other 8 cases were confirmed by bacteriological culture. Corneal diseases are one of the main causes of visual impairment and affect almost 4 million. This study assesses the effects of deep anterior lamellar keratoplasty (DALK) with porcine corneal stroma and postoperative topical treatment with tacrolimus in patients with infectious keratitis. Receiver bed diameters ranged from 7.00 to 9.00 mm. No incidents of Descemet's membrane perforation were observed during surgery. During the follow-up period, no corneal graft splitting, IOP increase, or intolerance to tacrolimus were observed. Deep anterior lamellar keratoplasty seems to be the best option to avoid xenograft rejection, and it could help new surgical techniques in humans.

Keywords : ophthalmology, cornea, corneal transplant, xenografts, surgical innovations
Conference Title : ICCEO 2022 : International Conference on Clinical and Experimental Ophthalmology
Conference Location : Moscow, Russia
Conference Dates : August 30-31, 2022