PRESERVED SCLERAL HOMOGRAFT FOR CORNEAL ULCER COMPLICATED WITH LARGE PERFORATION IN AN EMERGENCY

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Corneal ulceration is one of the most frequent causes of blindness in developing country. In dealing with corneal ulceration, corneal perforation is a very emergent complication. Iris prolapse and endophthalmitis could happen via the orifice. Loss of the anterior chamber could result in corneal decompensation and cataract formation. Furthermore, in case of large perforation, loss of the eyeball is inevitable unless undergoing urgent penetrating keratoplasty. However, the source of donor corneas is limited in our country. We used preserved scleral homografts to repair the large perforation in 4 cases of corneal ulceration because the donor corneas were unavailable. After the scleral grafting, three of them underwent the penetrating keratoplasty within 16 days. The fourth case refused further surgical management, and the scleral graft could still remain the tectonic structure after one-year follow up. The benefits and disadvantages were discussed. Two-step transplantation is an alternative choice for treatment of large perforation of corneal ulcer with the following advantages, 1) Elimination of the infection source, 2) remain the eyeball structure, 3) relatively available, 4) possibly decrease the failure rate of following penetrating keratoplasty.

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