Purpose: To describe our technique of using autologous oral mucosa combined with biological or synthetic patches to restore the ocular surface in cases such as erosion, ulceration or retraction of the conjunctiva that may appear after different glaucoma surgical procedures.

Methods: Retrospective interventional case series of 5 cases whereby autologous oral mucosa was used to cover a large conjunctival defect after glaucoma surgery. The surgical technique of repairing conjunctival defects due to glaucoma procedures with human autologous oral mucosa with or without processed tissue or synthetic patch is described. Two cases of conjunctival ulceration and exposure of a glaucoma drainage device (GDD), 1 case of severe conjunctival retraction after GDD implantation and 2 cases of ulceration of the filtering bleb after trabeculectomy are discussed.

Results: A complete and stable reconstruction of the ocular surface was achieved in all (5/5) cases with no recurrence of the conjunctival ulceration or retraction after 1 year of follow up. In two cases a penetrating optical keratoplasty as a secondary procedure was needed. In one case a transscleral diode laser cyclophotocoagulation was performed through the oral mucosa without any added difficulty.

Conclusion: The use of autologous oral mucosa to repair severe ocular surface complications derived from glaucoma procedures is a safe and efficient procedure. It's easy harvesting and anatomic integration into the ocular surface makes it our tissue of choice in these cases.