

Penetrating keratoplasty (PK) is frequently performed for endothelial dysfunction, such as Fuch's endothelial dystrophy and pseudophakic bullous keratopathy. Full thickness keratoplasty has many complications such as graft rejection, high astigmatism, suture related complications and penetrating wound complications.

Lamellar keratoplasty is an operation in which only diseased corneal tissue is removed and replaced by donor corneal material. The procedure is performed either to provide structural support for the cornea or to improve vision.

There are different types of lamellar keratoplasty either anterior or posterior. Anterior lamellar keratoplasty has types either superficial or deep.

Deep anterior keratoplasty may be (a) optical to remove corneal scars, dystrophies, degeneration and ectasia (b) therapeutic to remove a certain corneal pathology (c) tectonic in corneal thinning disorders to restore conical thickness and maintain the integrity of the globe (d) cosmetic in cloudy opaque cornea in non seeing eye.

DALK has many different techniques either automated (Microkeratom-assisted) which is usually complicated by the interface opacities or manually (peeling-off , Hydrodissection, Visicodissection, Divid and Coqure technique, intrastromal air injection and big bubble dissection).the most common complication of DALK are Descemet`s memberane perforation, Urrets Zavala and interface opacities.Manual dissection allows dissection to the level of Descemet`s memberane , so decrease the incidence of interface opacities.

DLEK is a procedure in which the diseased corneal endothelium only is replaced by healthy donor endothelium ,in case of localized corneal disease in the endothelium such as corneal decompensation after cataract extraction or fuch`s dystrophy without any associated other layer opacities.

The most common complications occur with DLEK are graft dislocation or rejection.If the graft is fixated by sutures the complications of sutures may occur as astigmatism , ametropic shift, suture vascularization and endophthalmitis.