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Abstract Information

Abstract Title:

Correlation between surgical technique and functional results in non-penetrating deep sclerectomy

Purpose:

to establish the relationship between the way the Schlemm's canal is unroofed by the surgeon and the subsequent functional results of surgery.

Design:

Retrospective viewing of videorecordings.

Participants:

Video recordings of 500 consecutive procedures performed by the same surgeon.

Main Outcome Measures:

Intraocular pressure, optic nerve topography and visual field evolution.

Methods:

Collection of videogonioscopy, IOP, pathological anatomy and UBM data of the 6 postoperative months from the clinical records of the patients studied. There was an 8-year follow-up of all patients, who were examined with diurnal pressure curves, confocal tomography of the optic nerve and conventional (SAP: standard automated perimetry) and non-conventional (Frequency Doubling Technology) perimetry in all visits.

Results:

A relationship between the surgical step consisting in the removal of the external wall of the Schlemm's canal and the removal of the juxtacanalicular tissue with the results of surgery and the frequency at which postoperative goniotomy is required is hereby demonstrated.

Conclusion:

The functional results of NPDS, particularly regarding postoperative IOP regulation, have a direct relationship with the surgical technique used and the

ability to actually remove the Schlemm's canal, as well as the juxtacanalicular tissue.