

Transconjunctival wide-field (WF) 25 Gauge vitrectomy in diabetic retinopathy (DR)

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Purpose:

To demonstrate the possibilities and particularities of TSV 25 G in DR surgery if a wide-field view is required.

Methods:

We present surgical technic with TSV 25 G for ME in DR with Both Bausch and Lomb and Dorc System. Data from 14 eyes with vitreous hemorrhages or proliferative DR were analyzed. A three-ports 25 G vitrectomy (using 25 G endo-illumination) with contact lens (MiniQuad XL Volk) was used. External illumination with slit-lamp was performed if necessary. A complete vitrectomy was performed with external temporarily buckling (ETB) for all cases providing possibility of bimanual surgery. Special care was performed for vitrectomy around the trocar. Endolaser and transconjunctival cryocoagulation were performed if required. Fluid-Air exchange was performed if high risk of Retinal Detachment or if big macular cysts noticed. Smooth conjunctival coagulation was performed just after trocars ablation. ETDRS VA, funduscopy, SLO Heidelberg retinography and OCT examinations were performed (pre- and post operative) Echography B pre-operative if necessary.

Results:

Complete vitrectomy was possible using ETB. Processing speed varied, depending on cases and on the learning curve. No efficiency difference between the 2 cutter System and it was possible to mix components of systems. Endoillumination fibers efficiency was different and some needed use of external slit-lamp. No secondary vitreous incarceration but 2 eyes with subcapsular posterior cataract were noticed. Conjunctiva was without abnormalities after 8 days. Conjunctival swelling was observed until 8 days postoperative if external cryocoagulation had been done. No pain and no patient had IOP problem after surgery. No endophthalmitis or retinal detachment in any patient.

Conclusion:

In WF surgery for DR, surgery with TSV 25 G was efficient and safe. There was no efficiency difference observed for vitrectomy compared to usual 20 G surgery. Some of 25 G endoillumination fibers seem more suitable for such surgery.

