

New generation 25 gauge vitrectomy for proliferative diabetic retinopathy

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Advantages:

To compare the feasibility and efficacy between bimanual membrane peeling technique vitrectomy (group 1) and new generation 25 gauge vitrectomy system (group 2) for treating traction retinal detachment (TRD) secondary to severe proliferative diabetic retinopathy (PDR).

Methods:

8 eyes of 8 patients who underwent primary vitrectomy with bimanual technique were compared with 8 similar eyes (8 patients) that underwent 25-gauge last generation vitrectomy system. The main outcome measures were: anatomic success, intraoperative and postoperative complications.

Effectiveness / Safety:

The anatomic success rate was 75% in group 1 and 87.5% in group 2. The surgical time and intraoperative complications in group 2 decreased significantly compared with group 1. Vitrectomy with 25-gauge new generation system offers comparable anatomic success compared with bimanual PPV in patients with TRD resulting from severe PDR.

Take home message:

This technique shortens the surgical time with fewer intraoperative complications and favourable visual recovery.