

How many holes does the patient's eye need to tolerate?

Authors: Frank Koch, Pankaj Singh, Fawaz Al-Sareireh, Michael Koss, Frankfurt am Main, Germany

Advantages:

Several pathologies in intraocular eye diseases warrant no more than one or two pars plana vitrectomy small-gauge entry sites. Thus surgery can timewise and clinically be effective, less stressful for the eye (AND the surgeon) and is likely to end up with impressive visual acuity and quality of vision.

Methods:

The 23 g Intrector® can be used for a limited PPV either together with microscopic illumination plus planoconcave contact lens or the light of the indirect ophthalmoscope or diaphanosopic illumination. If a single torpedo, representing the small gauge line of chandelier illumination devices, is added at another site it turns the procedure into a mini-gauge two stitch PPV which even allows to work under microscopic wide - field observation. Or you can introduce a mini infusion cannula at another site and then work with a 25 gauge Intrector® version (cutting and suction).

Effectiveness / Safety:

Over 4500 Intrectomy interventions didn't show any device related complications. Most popular are ppv/drug injection procedures (more sustainable/long-term effects on choroidal neovascularisation, retinal vein occlusion edema and diabetic retinopathy), floaterectomies (no cataracts), clearing of vitreo-retinal bleedings (no further vitreous contraction, less risk of retinal detachment, interruption of the cascades in proliferative diabetic vitreo-retinopathy), uveitis/endophthalmitis diagnostics and the management of complicated cataract surgery.

Take home message:

Highly sophisticated pars plana vitrectomy machines are a need if surgeons have to perform delicate procedure on or below the retinal surface. However, not all pathologies need epi- or subretinal peeling maneuvers. Partial PPV's with one of the different Intrector® setups shorten surgical stress to the eye, stabilize the lens and still allow to address different pathologies adequately.