

Does size really matter in PDVR?

Author: Nikolic S., Kacer B., Koch F., Hattenbach L.-O.

Background:

The following attributes of the 25 Gauge transconjunctival vitrectomy technique are often discussed: the quality of the intraocular illumination, the unintentional bending of some instruments and perhaps the sutureless closure with the vitreous incarceration in the entry sites.

Methods:

In order to investigate on the above mentioned conditions in diabetic retino- and maculopathy we examined 30 diabetic patients (14 female, 16 male, mean age 64 +/- 15 years) treated by the means of 25 G pars plana vitrectomy. The ILM was peeled and the peripheral retina photocoagulated together with an air-tamponade in all cases. In order to investigate the security of the procedure an endoscopic visualisation of some entry sites was available. All patients were closely followed during the whole follow up period.

Results:

A thorough cleaning of the sclerotomies with a cutter reduced the rate of vitreous incarceration without any influence on the postoperative intraocular pressure. The hand held light pipes seem to profit even more from a suitable and powerful external light source than the chandelier systems do. Some of the 25 G instruments still keep bending and thus remain to be a challenge for the producers. There were no postoperative intraocular inflammations or retinal detachments in our patients.

Conclusion:

According to our results the 25 G vitrectomy is a safe and efficient approach in the treatment of diabetic retinopathy. The indentation using the microscopic light source together with the Biom enables a good visualisation of the peripheral retina. There was no evidence of an increased risk for the diabetic patient when treated by the standards of 25 G vitrectomy.

