

17th International Conference on

Clinical and Experimental Ophthalmology

October 01-03, 2018 | Moscow, Russia

Development of novel radial relaxation retinectomy method on retinal detachment with advanced proliferative vitreoretinopathy

Waldensius Girsang

Jakarta Eye Center (JEC) Hospital, Indonesia

Retinal detachment (RD) remains one of the most challenging cases in vitreoretinal surgery. It becomes more challenging as the condition advances, marked by abnormal cellular accumulation creating traction to the retina known as proliferative vitreoretinopathy (PVR). Treatment of RD often requires complex procedures, particularly those at advanced stage of RD with PVR. The presence of PVR may reduce the anatomical success rate of RD treatment due to double burden and difficulty level of the surgery. Surgical treatment of RD with PVR may involve multiple procedures including scleral buckling, membrane peeling, retinotomy, retinectomy and intraocular tamponade injection. To date, vitrectomy, membrane peeling, retinotomy with additional silicon oil tamponade has been considered as the best technique for treatment of RD with advanced PVR. Retinotomy has been widely used for their management. Subsequent development of 360 degree, circumferential retinotomy was done for advanced PVR. More recently, peripheral 360 degree retinotomy, anterior flap retinectomy and radial retinotomy were combined to improve anatomical outcomes of RD with advanced PVR. These techniques have been reported to have considerable anatomical success rate than previous retinotomy alone. However, recent report has suggested that only a small portion of patients achieved good visual acuity and there were substantial number of post-operative complications such as persistent hypotony, corneal damage and retinal redetachment. Theoretically, in retinal detachment, there is tangential force caused by PVR that plays key role in creating the traction and ultimately reduce the success rate of postoperative retinal reattachment. Therefore, any procedures performed during surgical treatment of RD with PVR should aim to reduce or eliminate this tangential force to achieve anatomical reattachment of the retina. This review aimed to show novel method of radial relaxing retinectomy to eliminate this tangential force caused by PVR, showed its anatomical success and postoperative complications of this method during 6 months follow-up.

Notes: