

Safe Methods in Vitreo-Retinal Procedures During Complicated Retinal Detachment Cases

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Advantages:

To evaluate the effectiveness of safe surgical techniques and instruments in treating proliferative vitreoretinopathy (PVR) retinal detachment.

Methods:

Results of vitreoretinal operations in proliferative vitreoretinopathy (PVR) retinal detachments were analyzed in 215 patients (242 eyes). Improvements for safer vitreoretinal techniques and instruments were worked out and used. Peeling of membranes with the help of viscoelastics and new instruments, new technique of intravitreal Triamcinolone injection for long term tamponade.

Effectiveness / Safety:

The use of viscoelastics for peeling membranes and the smoothing of retinal folds has lowered the aggressiveness of tractional manouvers on the retina and has reduced the incidence in iatrogenic tears from 7,3% to 4,4%. The incidence of the retina failing to reattach dropped from 16,1% to 5,8%. Intravitreal Triamcinolone injection is carried out in association with the vitrectomy procedure. This has led to a decrease in frequency of the inflammatory response and the recurrence of PVR. Within 1 month after operation recurrence of PVR was reduced from 13, 7% to 4, 4%. Owing to the use of these methods, the necessity for additional scleral buckling has also decreased. Use developed by us of sparing technology and tools for vitreoretinal surgery of RD complicated by PVR, has led to a decrease in the number of complications (21,3%), to an increase in the number of reattached retinas (6,2%) and with longer lasting functional results (20,3%) over a five year-period.