

Silicone oil tamponade finishing in treatment of retinal detachment

Authors: K.P. Takhchidi, Victor N. Kazaykin, A.A. Rapoport, Yekaterinburg, Russia

Advantages:

To develop effective system of various methods of silicone oil (SO) tamponade finishing in retinal detachment (RD) treatment.

Methods:

The results of SO tamponade finishing in 257 eyes have been analyzed. During SO removal two main tasks have been solved: to create most favorable conditions for retinal attachment postoperatively and to perform most complete SO removal from the vitreous cavity, including emulsified fraction of SO. Method of SO removal depended on retinal adaptation, presence of vitreoretinal tractions, emulsification of SO and transparency of optic media.

Effectiveness / Safety:

After tamponade finishing, retinal attachment was achieved in 230 eyes (89.5%), recurrent RD occurred in 27 eyes (10.5%). The greatest number of recurrent RD occurred during the 1st month. Residual vitreoretinal tractions were the most common reason (12, 44.4%). The duration of tamponade did not significantly influence the anatomical result. Recurrent RD after SO tamponade finishing were more often in large (P: 0.05) and giant retinal tears (p: 0.01), axial length of the eyeball less than 22.5mm (p: 0.05), recurrent RD during tamponade (p: 0.05) and in aphakia (U=1.9). The most common complications after tamponade finishing were: opacification of transparent lens (12 eyes, 28%), intraocular pressure decompensation (23 eyes, 8.9%), residual SO emulsification (33 eyes, 13%). These complications began to occur from the 1st month of tamponade in many cases. In 189 eyes (73.5%) visual acuity improved, in 23 eyes (9.0%) remained unchanged, in 45 (17.5%) has worsened.

Take home message:

- (1) An effective system of various surgical methods of SO tamponade finishing has been developed.
- (2) The 1st month of tamponade is the best time for SO tamponade finishing in retinal detachment treatment.