

## **Primary vitrectomy for retinal detachment with 20% concentration of perfluoropropane for internal tamponade**

Author: Alexey Putienko, Odessa, Ukraine

### **Advantages:**

20% C3F8 allows to achieve 75% or more of gas mixture in vitreous cavity for at least 10 - 12 days after operation, and for this reason there is the possibility to block the tears, which localize in any part of retina, even in inferior zone, very anteriorly.

### **Method:**

At the end of vitrectomy 20 ml of 20% C3F8 is flushed through the vitreous cavity after suturing of one sclerotomy. After suturing of all sclerotomies, intraocular pressure must be normal. If the eye is hypotonic, it is necessary to add some more gas mixture through pars plana by a sharp needle.

### **Effectiveness:**

140 vitrectomies were performed for primary retinal detachment, with PVR A and B. 37 patients (26,4%) had inferior tears. 6 month follow up showed, that retina was attached with one operation in 124 eyes (88,6%). In 16 cases recurrences occurred. The main cause of recurrence was formation a new tear at the edge of encircling laser -10 eyes; only in 3 cases was progression of PVR observed. In three eyes the cause of re detachment was unknown. After a second operation, reattachment was achieved in 11 eyes. In 2 eyes phthisis developed, and 3 eyes had a second recurrence. Thus, overall reattachment rate of vitreous surgery with 20% C3F8 over a 6 months follow up was 96,4%.