

SP69 Scleral resection in the system of combined surgery of anterior vitreoretinal proliferation

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Aims: Optimization of results of surgical treatment of the most severe manifestations of anterior vitreoretinal proliferation (APVR).

Methods: The circular scleral resection (CSR) was performed, as one of the components of vitreoretinal surgery (VRS), in 30 patients with APVR type 4,5 (main group). For the comparison we have analyzed surgery outcomes in 9 patients with same manifestations of APVR (control group), in whom circular or sectoral retinotomy (RT) was performed instead of CSR.

Results: Anatomical success achieved in 63,3% patients of main group (22,2% - in the control group). At a postoperative period the recurrence of APVR is developed in 29,6% patients of main group and in 77,7% patients of control group. The follow up was 3 months - 2 years.

Conclusion: CSR, as a component VRS, optimizes results of a treatment of patients with APVR and can be the method of choice. There was a trend for reduction of complications incidence in the main group.

SP71 Drainage or not, of subretinal fluid in conventional retinal detachment surgery

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Aims: To show whether the drainage of subretinal fluid, has or hasn't got the advantage in the conventional retinal detachment surgery.

Material and methods: We have analyzed 82 patients with total or subtotal rhegmatogenous retinal detachment with deep subretinal fluid. They underwent buckling procedure with elastic sponge explants and encircling bands, with drainage of subretinal fluid during the operation. While performing the operation we have also injected a balanced salt solution 1-2ml, or air into the vitreous.

Results: After the first operation out of all patients reattachment was achieved in 73 patients (89,1%). Retinal reattachment with complete resorbed subretinal fluid and accurate sitting of the brakes on the buckles was seen in 52 patients (63%) in the first post-operative day, after 2-4 days in 7 patients (8,53%), after 5 to 7 days in 3 patients (3,65%), and after 15 days in 1 patient (1,21%).

As a complication of the drainage procedure in 6 patients (7,3%) we have noticed vitreal haemorrhage, as well as retinal haemorrhage in 2 patients (2,4%).

Conclusion: The advantages and disadvantages in the performing of the drainage procedure during the conventional retinal detachment surgery lead to different opinions whether to perform it or not, and it makes this issue an open question.

A long term study with groups under similar conditions, especially in cases with macula detachment, deep subretinal fluid and extensive periretinal membranes perhaps will give us the answer.

SP70 Surgical treatment of severe forms of retinopathy of prematurity

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Aims: In this investigation we study efficiency of modern methods of surgery in treatment of 4th and 5th stages of retinopathy of prematurity (ROP).

Methods: We carried out 67 vitrectomy in 39 patients (56 eyes) of the age gestation from 26 to 33 weeks and weight 700 to 2250 grams. The age at operation was from 2 -34 months. All the patients suffered from ROP 4a - 5 stage. In surgery we used the following devices: "STORZ-Premiere" and "ALCON-Accurus".

For stretching and fixation of the retina we used "heavy liquids" - 15 eyes; silicon oils - 4 eyes; gases (SF₆ and C₃F₈); retinal nails - 4 eyes, endolaser retinopexy and cryopexy. Scleral buckling was fulfilled on 14 eyes.

Results: In all cases of ROP 4a stage (7 eyes) after operation we get full retinal reattachment. In 10 patients with ROP 4b full retinal reattachment we obtained in 7 cases. In 2 patients "dry folds" remained and in 1 case retina did not reattached by the reason of fast progressing of the ROP.

In all cases of 5th stage of ROP retinal landscape was in the shape of "closed tunnel" (39 eyes). The full reattachment of retina was obtained in 12 eyes, partial attachment (with some retinal folds) - in 4 eyes and no reattachment in 23 eyes.

The main reasons of unsuccessful were presence of giant retinal breaks on peripheral parts and central retinal tears with big retinal rigidity.

Conclusion: We reach good anatomical effect 57,1% of all the cases. The most optimal for getting positive effect of surgical treatment related itself vitrectomy in 4th stage ROP. Nevertheless, using of modern methods of vitreoretinal surgery allows to get good results in 5th stage of ROP.

SP72 Progression of diabetic retinopathy in patients of a specialised department in Greece

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Aims: The evaluation of the progression of diabetic retinopathy (DR) in patients of the specialised department of the University of Patras Ophthalmological Clinic.

Methods: A retrospective study of 478 diabetic patients examined in the Department of Retina and Vitreous of the University of Patras Ophthalmological Clinic from June 1989 to December 1998 was conducted. Type I diabetes mellitus (DM) was present in 4.4% of them, 11 males and 10 females 10 to 39 years of age (average age 30.2). Type II DM was present in the rest 95.6%, 227 males and 230 females 40 to 90 years of age (average age 63.3). In 78.8% of type II diabetic patients, treatment was diet or/and oral hypoglycaemic agents, and the rest 21.2% were insulin-taking patients. Re-examination at least once was done in 339 patients. Their follow-up period ranged between 1 week and 9 years.

Results: At baseline examination, 18.4% of the eyes were found without DR, 61.2% with background DR, 10.1% with pre-proliferative DR, and 10.3% with proliferative DR. In 35.4%, no laser treatment followed. The rest 64.6% underwent focal or/and Grid laser or/and pan-retinal photocoagulation. At final examination, DR had remained the same in 64% of the eyes, progression of DR had occurred in 33.3%, and regression had occurred in 2.7%. Progression of background to proliferative DR was 23.8%.

Conclusion: Type I DM patients' eyes presented higher rates of progression of DR, higher prevalence of proliferative DR at final examination, and significantly higher rate of progression of background to proliferative DR than those of type II DM patients' eyes. There was also found a statistically significant correlation of progression of DR with duration and insuline treatment of DM.