Vitreous cavity hemorrhages and fibrovascular ingrowth after primary 25 gauge vitrectomy in diabetic

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Advantages:
Multiple investigators reveal fibrovascular ingrowth (FVIG) and anterior hyaloidal fibrovascular proliferation (AHFVP) at UBM of former sclerotomy sites after primary vitrectomy in diabetic patients. It is considered that FVIG and AHFVP are the reason of postvitrectomy diabetic vitreous hemorrhages. It is of an interest to study the influence of 25-G vitreous surgery on the frequency of postoperative complications in diabetic patients. To define the frequency of FVIG and vitreous hemorrhages after primary 25G vitrectomy in diabetic patients and to study the correlation of FVIG and postvitrectomy diabetic vitreous hemorrhages.

Methods:
The study involves 47 patients (51 eye) after 25G vitrectomy without endotamponade for diabetic retinopathy. Mean age of the patients was 50 years, mean follow-up was 11.6 months. In all the patients UBM of the three sclerotomy sites was performed at 1, 3, 6 and 12 months after vitrectomy. Healing of sclerotomies as well as presence or absence of FVIG was estimated.

Effectiveness / Safety:
According to UBM data three types of sclerotomy sites healing were defined: well healed, vitreous incarceration, and fibrovascular ingrowth. FVIGs were found in 7 eyes (13.72%), and AHFVP was not found in the investigated group. Postvitrectomy diabetic vitreous hemorrhages occurred in 11 eyes (21.57%) after primary 25G vitrectomy, in 5 eyes FVIGs were found (group 1). Out of 40 eyes (78.43%) without postvitrectomy diabetic hemorrhage, FVIGs were found only in 2 eyes (group 2). After comparison of these two groups it was found that FVIG at sclerotomy sites is one of the factors associated with more frequent occurrence of postvitrectomy diabetic vitreous hemorrhages after primary 25G vitrectomy in diabetic patients (<eth> 0.001).

Take home message:
It is of an interest to study the influence of 25-G vitreous surgery on the frequency of postoperative complications in diabetic patients.