

# SYMPOSIUM: PROLIFERATIVE DIABETIC RETINOPATHY

Moderators: Mahmoud Soliman, Khaled El-Rakhawy

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## Clinical experience with heavy silicone oil in diabetic tractional retinal detachment

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### **Purpose:**

To evaluate the efficacy and safety of a silicone oil-RMN3 mixture (heavy silicone oil) as a heavier as water internal retinal tamponade after vitrectomy in severe proliferative diabetic retinopathy.

### **Methods:**

7 patients (7 eyes) were included in this study. Age ranged from 31 to 62 years. 5 were male, 2 female. All eyes had vitreous hemorrhage, extensive fibrovascular membranes combined with tractional and/or rhegmatogenous retinal detachment. Follow-up ranged from 6-14 months (average: 7 months). Pars plana vitrectomy, removal of the extensive fibrovascular membranes, endolaser photocoagulation and heavy silicone oil tamponade was performed. The oil was removed in three months average. The patients resumed normal activity with no restriction of head or eye position except to avoid facedown position. The main outcome measures were the anatomic reattachment rate, visual acuity, intraocular pressure and biomicroscopic appearance. Preoperative best corrected visual acuity range from 20/50 to hand motion.

### **Results:**

After surgery, final anatomic success was obtained in all of the patients. Postoperatively 6 eyes (85%) had improvement in visual acuity, one eye (14%) remained stable. At the end of the follow-up period, three patients had a visual acuity better than 0.1. Two patients (28%) had an increased intraocular pressure that was controlled with topical antiglaucomatous drops. We did not observe any significant emulsification and there was no other significant adverse effects arising from heavy silicone tamponade.

### **Conclusion:**

Heavy silicone oil tamponade in severe proliferative diabetic retinopathy is effective and safe, and shows good intraocular tolerance. Its specific gravity allows for sufficient tamponade in these cases. Heavy silicone may be optimal for the treatment in these severe diabetic patients who cannot maintain facedown positioning.

