

R1  R2  R3  PG0  PG1  Estagiário  Tecnólogo   
PIBIC Last Name - Brasil First Name - Maria Vitoria Middle - Oliveira Moura  
Service (sector) Glaucoma N° CEP

### **Comparison of the efficacy of polypropylene and silicone Ahmed implants**

Maria Vitoria O. Moura Brasil, Scott D. Smith

Cole Eye Institute, The Cleveland Clinic Foundation

**Purpose:** To compare the efficacy of polypropylene versus silicone Ahmed glaucoma valves in patients with refractory glaucoma. **Materials and Methods:** Retrospective chart review of patients who underwent Ahmed glaucoma valve insertion in the Glaucoma Division of the Cole Eye Institute of The Cleveland Clinic Foundation between May 2000 and January 2005 was performed. All eyes with at least 3 months of follow up data were included. **Results:** A total of 100 eyes of 94 patients were included in the study. 54 eyes received polypropylene (Group A) and 46 eyes received silicone (Group B) Ahmed glaucoma valve implants. Mean preoperative intraocular pressure was  $33.8 \pm 10.7$  mmHg in Group A and  $32.5 \pm 10.8$  mmHg in Group B ( $p=0.56$ ). Mean postoperative intraocular pressure was  $16.5 \pm 6.6$  mmHg in Group A and  $16.9 \pm 6.3$  mmHg in Group B after 3 months ( $p=0.78$ ),  $17.9 \pm 6.4$  mmHg in Group A and  $17.5 \pm 6.2$  mmHg in Group B after 6 months ( $p=0.78$ ) and  $14.3 \pm 5.2$  mmHg in Group A and  $14.6 \pm 4.3$  mmHg in Group B after 1 year ( $p=0.75$ ). Preoperative number of glaucoma medications was  $3.3 \pm 1.2$  in Group A and  $3.6 \pm 0.9$  in Group B ( $p=0.12$ ). Postoperative number of glaucoma medications was  $1.1 \pm 1.2$  in Group A and  $1.0 \pm 1.2$  in Group B ( $p=0.64$ ). Time that medications were started after surgery was  $63.7 \pm 83.0$  days in Group A and  $56.0 \pm 52.4$  days in Group B ( $p=0.68$ ).

**Conclusions:** There was no statistically significant difference between polypropylene and silicone Ahmed implants in controlling the intraocular pressure after 1 year follow-up.