

# Poster Abstracts

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### Surgery

#### I Clinical Result of Trabeculectomy and Ologen Implant as Compared with CO2 Laser Assisted Sclerectomy (Class) and Ologen Implant in Patients with Open-Angle Glaucoma



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#### Purpose/Relevance

Comparative outcome postoperative on Patient with Refractory Glaucoma submitted to Trabeculectomy Surgery+Ologen and Patients CO2 Laser Assisted Sclerectomy(Class)+Ologen.

#### Methods

This is an Analytic, Retrospective and Cross-sectional study on a case of series of 88 eyes. We compare the results of two surgical techniques, the Phacoemulsification+Trabeculectomy Surgery+Ologen was done in 2013-2014 and Phacoemulsification+ CO2 Laser Assisted Sclerectomy (Class)+ Ologen were done in 2015-2016. We included in the study all patients diagnosed with Refractory Open Angle Glaucoma. We measured intraocular Pressure (IOP) at 1 month, 3 months, 6 months and 9 months. We also evaluated best corrected Visual Acuity (BCVA) and decrease of antiglaucoma medication at 1 month and 9 months. We described the postoperative complication during the 9 months. Success rate was defined as the decrease in IOP less than 18 mm Hg without medication at 9 months of surgery.

#### Results

A total of 88 eyes, 49 eyes were included in the trabeculectomy group and 39 eyes in the Class group. Both groups were followed for 9 months. In the trabeculectomy group mean  $\pm$  SD preoperative IOP was  $19.22 \pm 9.20$  with a decrease to 9 months  $13.31 \pm 3.48$ . The mean  $\pm$  SD preoperative BCVA was  $0.26 \pm 0.43$ , the mean  $\pm$  SD at 9 months was  $0.40 \pm 0.64$ . The antiglaucomatous preoperative drug was  $2.81 \pm 1.20$ , at 9 months the mean  $\pm$  SD was  $1.47 \pm 1.50$ . The postoperative complications were athalamia 4%, Hemorrhagic Detachment 2%, Choroid Detachment 2% and need another surgery to reduce intraocular pressure (endocyclophotocoagulation or Baerveldt Valvular implant ) was 5% of the 49 eyes. The success rate of this technique was 64.4%. On the other hand, the Class group preoperative IOP mean  $\pm$  SD was  $22.87 \pm 9.17$ , at 9 month was  $12.97 \pm 2.42$ . The mean  $\pm$  SD preoperative BCVA was  $0.27 \pm 0.32$ , at 9 month was  $0.11 \pm 0.17$ . The mean  $\pm$  SD preoperative antiglaucomatous drug was  $3.51 \pm 0.75$  and at 9 month reduced to  $2.08 \pm 0.95$ . The main early postoperative complication was transient ocular hypertension in 4% of patients; it was treated with acetazolamide orally and was resolved in all cases at 1 postoperative month. During the 9 month postoperative we had to make goniopuncture on 18% (7 eyes), needling on 12% (5 eyes) and iridectomy on 5% (2 eyes). The success rate for the Class group was 94.9%.

#### Discussion

The trabeculectomy is a procedure that over the years demonstrated control of intraocular pressures; however, it is a surgery that presents high complications postoperatively that compromise visual acuity of patients, with a success rate that it has proven to be less time, that techniques most modern, as the CO2 Laser Assisted Sclerectomy (Class), which also allows proper control intraocular pressure, evidenced minor complications postoperative which preserves the visual acuity of patients, having excellent success rates that should be studied over time to see if they are kept.

#### Conclusion

Our study showed that CO2 Laser Assisted Sclerectomy (Class) is a safe technique that allows greater reduction of intraocular IOP, maintains better visual acuity, has lower rates of postoperative complications and higher success rates than conventional trabeculectomy.