INDUCED OCULAR HYPOTONIA FOR EXTREME PERIPHERAL RETINAL LASER PHOTOCOAGULATION
A. Ayata¹, Y. Yildirim²
¹GATA Haydarpaşa Training Hospital, Department of Ophthalmology, İstanbul, Turkey
²İzmir Military Hospital, Ophthalmology Service İzmir, Turkey

PURPOSE: To discuss beneficial effect of induced hypotonia for laser treatment of extreme peripheral retinal area.

METHODS: A 58-year-old man was presented with upper quadrant retinal detachment and retinal tear and localized at 11 o’clock in his right eye. Pneumatic retinopexy was applied with 0.4ml sulfur hexafluoride gas and anterior chamber paracentesis was done with 30G needle armed syringe for intraocular pressure (IOP) balance. After the procedure patient was positioned and the eye was patched.

RESULTS: Although a successful attachment was achieved after two days, a non-intended ocular hypotonia (3mmHg) was observed due to the leakage from the paracentesis site even the fine needle and tunnel approach had been used. After the attachment the retinal tear was surrounded with argon laser photocoagulation by using contact lens and slit lamp photocoagulation without needing scleral depression. During the laser session retinal tear was clearly observed by help the ocular hypotonia. Otherwise retinal tear has been shifted the original location just near the ora serrata and it was almost impossible to visualize without scleral depression. On the fifth day IOP was increased to 14mmHg spontaneously without complication

CONCLUSION: Retinal laser photocoagulation is essential not only for retinal tears but also in several ischemic retinal diseases such as diabetic retinopathy, central and branch retinal vein occlusions. Peripheral non-perfused retinal regions are still difficult to visualize and to treat with conventional methods. As happen in this case peripheral retinal tears or non-perfused peripheral retinal regions may be treated easily by help of the intended ocular hypotonia.