

## **Transscleral Laser Retinopexy after Drainage of Sub-Retinal Fluid with Modified Needle Technique During Scleral Buckling Surgery**

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### **Advantages:**

Different modalities of retinopexy in buckling surgery have been attempted in rhegmatogenous retinal detachment (RRD). Each has potential complications which need to be overcome. Breakdown of blood retinal barrier (BRB) and dispersion of the retinal pigment epithelium (RPE) are undesirable complications created secondary to cryotherapy. Such a breakdown leads to macular edema, macular pucker, subretinal pigment migration, and to the development of proliferative vitreoretinopathy, the most common cause of failure in retinal de-tachment surgery. Other possible complications related to cryotherapy include accommodation paralysis, extraocular muscle abnormalities, intraretinal hemorrhages, vitreous hemorrhages and choroidal detachment. Conventional scleral buckling surgery was randomly assigned to have either cryotherapy or transscleral diode laser during surgery, or postoperative photocoagulation 4-6 weeks later. Transscleral diode laser retinopexy is a modality with few side effects.

### **Methods:**

We report two high risk cases of RRD where transscleral diode laser retinopexy was used after drainage of the subretinal fluid with modified needle technique.

### **Effectiveness / Safety:**

Approximation of the retina and RPE layers before delivering any type of treatment – either cryotherapy or laser treatment – might play an indirect role in decreasing the risk of PVR.