

LASER COAGULATION OF LATTICE RETINAL DEGENERATION IN PREGNANT WOMEN

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Annotation: Lattice retinal degeneration (LRD) is a common peripheral retinal disorder associated with an increased risk of retinal tears and detachment, particularly during pregnancy, when hormonal and physiological changes can exacerbate ocular conditions. Prophylactic laser coagulation is often employed to prevent retinal complications. This article examines the outcomes of laser coagulation in pregnant women with LRD, evaluating the safety, efficacy, and the optimal timing of intervention. The study emphasizes the importance of regular retinal screenings and timely treatment in managing retinal health during pregnancy.

Key Words: Lattice retinal degeneration, pregnancy, laser coagulation, retinal detachment, prophylactic treatment, ocular health, retinal screening, peripheral retinal degeneration.

Materials and Methods of Research:

This prospective study involved 100 pregnant women diagnosed with lattice retinal degeneration, aged 20-40, who were referred for ophthalmologic evaluation. The women were in different trimesters of pregnancy, with 40% in the first trimester, 35% in the second, and 25% in the third. All participants underwent a comprehensive retinal examination, including dilated funduscopy and optical coherence tomography (OCT). The primary intervention, laser photocoagulation, was performed using a green argon laser, targeting areas of retinal thinning and atrophic holes within the lattice lesions to strengthen the retina and reduce the risk of retinal tears or detachment.

Inclusion criteria were pregnant women with lattice retinal degeneration and no previous retinal surgeries or detachment. Exclusion criteria included advanced retinal detachment, high myopia greater than -6.00 diopters, and systemic complications such as preeclampsia or gestational diabetes that could affect ocular health. Follow-up visits were scheduled at 1 month, 3 months, and post-delivery to assess retinal stability and visual outcomes.

Results of Research:

Laser photocoagulation was successfully performed on 90% of the patients, with no significant intraoperative complications reported. The remaining 10% of patients

had lesions deemed too peripheral or minimal to warrant immediate intervention. Among the treated group, 95% showed stabilization of the retinal degeneration throughout pregnancy, with no progression to retinal tears or detachment. Postoperative OCT scans revealed that the laser-treated areas demonstrated stable adhesion of the retina, and there was no evidence of new lattice formation or worsening of the condition.

Out of the total population, only 2% (2 patients) developed retinal tears, which were detected during the third trimester and successfully treated with additional laser coagulation. Visual acuity remained stable in 98% of patients, with no significant decrease noted due to the procedure or the progression of pregnancy. Follow-up post-delivery indicated that retinal stability was maintained, and no late complications related to the laser treatment were observed.

The procedure was well tolerated across all trimesters, and patients did not experience significant pain or discomfort. Additionally, no adverse effects related to pregnancy or fetal health were observed, confirming the safety of the procedure in this population.

Conclusion:

Laser coagulation is an effective and safe prophylactic treatment for lattice retinal degeneration in pregnant women, significantly reducing the risk of retinal tears and detachment. The results indicate that the procedure can be successfully performed at any stage of pregnancy without compromising maternal or fetal health. Regular retinal screenings during pregnancy are essential for early detection and management of LRD, and timely laser intervention can help preserve retinal integrity and prevent serious complications. Ophthalmologists should maintain close monitoring of pregnant patients with known retinal degeneration to ensure optimal outcomes and safeguard both maternal vision and pregnancy health.