
Preliminary results for the PIPS (Peripheral Iridectomy Position Study): A Randomized Controlled Trial Investigating Optimal Laser Peripheral Iridectomy Placement

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Introduction: Laser peripheral iridectomy (LPI) is a common procedure for managing angle-closure. However, the optimal placement of LPI to minimize postoperative pain and visual symptoms remains unclear. This study, the Peripheral Iridectomy Position Study (PIPS), aims to investigate the effect of LPI position on pain and visual discomfort through a randomized controlled trial.

Methods: "100 subjects with angle-closure glaucoma scheduled for LPI will be randomly assigned to one of two groups: Group 1: LPI in superior position on the right eye and temporal position on the left eye. Group 2: LPI in temporal position on the right eye and superior position on the left eye. Preoperatively, all subjects will undergo a ophthalmic examination and complete a visual symptom questionnaire. Postoperatively, subjects will be assessed at 1 hour, 2 week, and 3 months for pain intensity and visual symptoms using the same questionnaire. Additionally, any adverse events will be monitored and recorded.

Primary outcome measures:

Visual symptoms: Presence of reported visual symptoms (e.g., glare, Horizontal, vertical and crescent shaped lines, halos, ghost images, diplopias, shadows and blurry vision) at each follow-up visit at 1 hour, 2 weeks, and 3 months postoperatively.

Pain: Mean difference in pain scores between groups"

Results: "84 patients completed the study and were included in the present analysis. Mean age in the full sample was 64.54 years (SD 10.8 years). A preponderance of female subjects was observed (66.7 vs 33.3%), most patients were caucasian (64.3%). There were no statistically significant differences between groups 1 and 2 in regard to age, gender, or ethnicity.

When examining the association between patients' group and the perceived symptoms after iridotomies, there were no statistically significant associations in any category.

Finally, when examining perceived pain after iridotomies, higher mean pain scores were detected on the temporal iridotomies for left eye basal, right eye 2 weeks and left eye two weeks (Table 4), with statistical significance. No other timepoints had statistically significant differences in the pain score.

Conclusion: These are the preliminary results for the PIPS which is designed for a sample size of 200 subjects. At the time of writing there is no statistical difference in visual symptoms between groups for superior and temporal locations. A larger sample size could provide a better insight into the best possible position for LPI.