

REVIEWER'S REPORT

Manuscript No.: IJAR-53240

Date: 12-08-2025

Title: Change in Intraocular Pressure Before and After Pharmacologic Mydriasis in Normal Controls and group of Glaucoma Patients

Recommendation:

Accept as it isYES.....

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality			✓	
Clarity			✓	
Significance		✓		

Reviewer Name: Dr Aamina

Reviewer's Comment for Publication.

Abstract Review:

The abstract clearly presents the study's aim, methodology, results, and conclusions in a structured manner. The purpose is explicitly stated, and the description of study design as a cross-sectional prospective analysis provides clarity on the research approach. The inclusion of specific mydriatic agents (0.8% tropicamide and 5% phenylephrine) ensures methodological transparency. The results are concisely reported with both mean \pm SD values and statistical significance levels, allowing readers to quickly grasp the magnitude and relevance of findings. The conclusion appropriately synthesizes the results, noting intra-group differences while indicating the absence of significant inter-group differences. Keywords are relevant, covering both the medical condition and the pharmacological intervention.

Introduction Review:

The introduction appropriately establishes the clinical relevance of intraocular pressure (IOP) monitoring in glaucoma management and explains the common clinical practice of pharmacologic mydriasis. The reference to its potential influence on IOP, especially in glaucoma patients, sets up the rationale for the study. The inclusion of the aqueous humor section provides a thorough physiological background, detailing its composition, nutritive and antioxidant functions, waste removal role, and importance in maintaining ocular transparency and immune balance. This section adds depth by connecting the fluid's physiological significance with IOP regulation, thus supporting the study's focus.

Scientific Content Review:

The study evaluates three distinct groups—normal controls, PACG post-YAG PI, and POAG—allowing for comparative analysis across clinically relevant populations. The use of Goldmann applanation tonometry ensures standardization of IOP measurement, and the 30-minute post-dilatation interval is clearly stated. Statistical methods, including Wilcoxon rank sum and Mann-Whitney U tests, are

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appropriate for the data type and sample size. The results are well quantified, with clear distinctions between intra-group significance and inter-group comparisons.

Clarity and Presentation Review:

The writing is concise and precise, with medical and technical terminology used accurately. The flow from background to methodology, results, and conclusions is logical. Numerical data is presented in a way that facilitates understanding, and p-values are clearly indicated. The background on aqueous humor integrates well into the introduction, linking physiology to clinical outcomes.

Overall Assessment:

The study presents a clear, methodologically sound examination of IOP changes after pharmacologic mydriasis in both normal and glaucoma-affected eyes. It offers clinically relevant findings that contribute to the understanding of IOP fluctuations in different patient groups, with implications for clinical caution and monitoring practices. The physiological context enhances the reader's comprehension of the mechanisms involved, making the work valuable to both clinical and academic audiences.