

REVIEWER'S REPORT

Manuscript No.: IJAR-55031

Title: "Study of Retinal Nerve Fiber Layer Thickness in Cases of Primary Open Angle Glaucoma in Correlation with Perimetric Changes and Central Corneal Thickness"

Recommendation:

- Accept as it is
 ✓ 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 S. K. Nath

Date: 01.12.25

Detailed Reviewer's Report

Strengths of the Paper

- **Comprehensive Assessment of Multiple Parameters:** The study evaluates the relationship between retinal nerve fiber layer (RNFL) thickness, visual field changes, and central corneal thickness (CCT) in patients with primary open-angle glaucoma. This multifaceted approach enhances the understanding of disease progression and risk factors.
- **Use of Advanced Imaging Techniques:** The application of spectral domain optical coherence tomography (SD-OCT) provides accurate and quantitative measurements of RNFL and optic nerve head parameters, which are vital in glaucoma assessment.
- **Clear Inclusion and Exclusion Criteria:** The study explicitly defines the criteria for participant selection, ensuring the reliability and reproducibility of the findings.
- **Attention to Statistical Significance:** The data analysis includes appropriate statistical tests, with a focus on significant correlations and differences between groups based on CCT.

Weaknesses of the Paper

- **Limited Sample Size:** The sample size (36 in each group) may not be sufficiently powered to generalize the findings broadly, especially regarding subgroup analyses.
- **Cross-Sectional Design:** The study's cross-sectional nature limits the ability to assess disease progression or causal relationships over time.
- **Inadequate Control of Confounding Variables:** Factors such as ethnicity, duration of glaucoma, and other comorbidities are not thoroughly controlled or discussed, which could influence the results.
- **Incomplete Detailing of Methodology:** Certain aspects, such as the calibration procedures for measurements and inter-operator variability, are not sufficiently elaborated.
- **Limited Discussion on Long-Term Implications:** The study emphasizes early detection but does not extensively explore how the findings could influence long-term management strategies.

Reviewer Comments

- **Ethical Clearance Status:** Although the study involves human participants, there is no explicit mention in the manuscript regarding ethical clearance or approval from an institutional review board. Clarification on this point is necessary.

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- **Issues in the Methodology:** The methodology section lacks details on the calibration of diagnostic instruments, blinding procedures, and measures taken to minimize bias. These details are important for reproducibility and validity.
- **Typographical Mistakes:** Minor typographical errors are present, such as misplacement of spaces and inconsistent formatting of units and references.
- **Grammar and English Language Quality:** Overall, the language is clear, but certain sentences could benefit from grammatical smoothing to improve readability.
- **Formatting Issues:** There are inconsistencies in heading styles, font uniformity, and alignment of tables and figures, which could be addressed for professional presentation.
- **Clarity of Objectives, Results, and Conclusions:** The objectives are generally clear; however, the results section could be better organized for clarity. The conclusions are aligned with the findings but could be more explicit in discussing clinical implications.
- **Adequacy of References:** The references cited are relevant and recent, but some in-text citations lack uniform formatting, and a few key studies on glaucoma progression are not included.
- **Missing or Incomplete Information:** The manuscript would benefit from including details on the calibration and standardization procedures for measurements, clarification on the ethical approval process, and a discussion on limitations such as sample size and study design.