

Peer Review

Review of: "Incidence and Predictors of Ocular Hypertension After Intravitreal Injection of Bevacizumab Among Patients Attending KCMC Hospital, 2023–2024"

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1. To strengthen the manuscript, consider clarifying the determination of the final sample size (120 participants). Explaining whether a power calculation or relevant incidence data informed this number would demonstrate the study's statistical rigor in detecting meaningful differences and its alignment with the research objectives.
2. In the Methods section, elaborating on the rationale for choosing the Icare tonometer over applanation tonometry would be beneficial. Detailing calibration protocols, operator training, and any comparative validations against a gold standard would enhance the reliability and generalizability of the reported IOP measurements.
3. For clarity and reproducibility, provide a more precise description of the injection technique and the exact volume of bevacizumab administered. Standardizing the dose, injection site, and aseptic precautions across all participants is crucial for interpreting post-injection IOP spikes and for comparison with other studies.
4. Given the repeated IOP measurements from the same eye at different time points, employing repeated-measures methodologies, such as a linear mixed model or repeated-measures ANOVA, would likely be more appropriate than multiple t-tests. Explaining or conducting such an analysis would better account for within-participant correlations over time, leading to a more robust assessment of IOP changes.

5. To address potential confounding factors, discussing the influence of topical steroids on intraocular pressure would be valuable. Clarifying the rationale for the chosen dosing schedule, how patients were monitored for steroid-induced IOP rises, and whether any steroid responders were identified would strengthen the interpretation of IOP elevations.
6. Providing more detail about the patient population at KCMC would help readers assess the generalizability of the findings beyond this single center. Elaborating on whether the participants' demographics or disease severity differ significantly from those in other regions would clarify the external validity of the results for clinicians in diverse practice settings.
7. The discussion of cumulative mechanisms underlying repeated bevacizumab injections could be further expanded. Explicitly exploring how these repeated injections might progressively contribute to mild trabecular meshwork dysfunction, inflammation, or microtrauma would enhance the biological plausibility of the observed IOP increases.
8. Comparing the findings to studies using other anti-VEGF agents like ranibizumab or aflibercept could offer valuable insights into whether the increased IOP risk is specific to bevacizumab or a broader effect of this drug class. Even a brief comparison with relevant literature would provide a wider context for clinicians when choosing between different therapies.
9. In the Discussion, highlighting the definition of ocular hypertension (IOP >21 mmHg or an increase of >5 mmHg from baseline) more prominently would be beneficial. Emphasizing how this stricter definition might explain the higher incidence rate compared to studies using a single threshold or higher cutoffs would clarify the reasons for these differences.
10. A more detailed discussion of the clinical significance of both transient and sustained IOP elevations would be valuable, particularly in defining what degree and duration of IOP spike is considered clinically relevant or harmful. Addressing whether short-term spikes that normalize within an hour pose substantial risks to optic nerve health could better guide clinicians in managing these acute elevations.

Declarations

Potential competing interests: No potential competing interests to declare.