

REVIEWER'S REPORT

Manuscript No.: IJAR-58620

Title: In-Vitro Anti-Microbial Potential of Indigenous Medicinal Plant Piper ceba Extracts Against Some Human Pathogenic Bacterial Strains

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

Detailed Reviewer's Report

Strength of the study:

- The study addresses the important issue of antimicrobial resistance
- A relevant indigenous medicinal plant was selected for investigation
- Multiple bacterial strains were included for comparative evaluation
- Different extract concentrations allowed assessment of dose dependent activity
- The methodology is generally well organized
- Results are presented with tables, graphs, and photographs
- The discussion is supported by relevant scientific literature

Weakness of the study:

- Statistical analysis is limited and requires stronger interpretation
- MIC and MBC values were not determined
- Sample size and experimental replicates need clearer description
- Ethical and biosafety approval details should be more specific
- Some grammatical and formatting errors require correction
- Plant authentication and voucher specimen details need strengthening
- In vitro findings cannot directly predict clinical effectiveness

Reviewers Comments:

The manuscript investigates the in vitro antimicrobial activity of *Piper ceba* against selected human pathogenic bacteria and addresses a topic of growing scientific importance. The objectives are clear, and the methodology is presented in a logical sequence. The inclusion of different extract concentrations, tables, graphs, and photographic evidence improves the overall presentation. However, the manuscript would benefit from clearer reporting of experimental replicates, statistical analysis, and validation through MIC and MBC determination. Although biosafety considerations are mentioned, the manuscript should clearly state whether ethical approval was required or officially exempt for this laboratory-based study. Minor grammatical, typographical, and formatting issues should also be corrected to improve readability. The discussion appropriately relates the findings to previous studies, but the limitations of in vitro experiments should be emphasized more clearly. Overall, the study provides useful preliminary findings on the antibacterial potential of *Piper ceba* and is suitable for publication after minor revision.

Previously Published anywhere/Plagiarism check:

The manuscript appears to be an original experimental study, and no obvious evidence of prior publication or copied content was identified during this review. There are no apparent signs of plagiarism from the submitted document. However, a standard journal plagiarism screening should be performed before acceptance to confirm originality and compliance with publication ethics.