

REVIEWER'S REPORT

Manuscript No.: IJAR-56894

Title :- ANTIBACTERIAL ACTIVITY OF AQUEOUS AND ETHANOLIC ROOT EXTRACTS OF PERICOPSIS LAXIFLORA AGAINST MULTIDRUG-RESISTANT UROPATHOGENIC BACTERIA ISOLATED FROM PATIENTS WITH BENIGN PROSTATIC HYPERPLASIA

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revisionX.....

Do not accept (*Reasons below*)

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

Reviewer's ID: JPR-142.

Detailed Reviewer's Report

The manuscript investigates the antibacterial potential of aqueous and ethanolic root extracts of *Pericopsis laxiflora* against multidrug-resistant uropathogenic bacteria. The study addresses a relevant and important issue in the context of increasing antimicrobial resistance and the need for plant-based therapeutic alternatives. The work demonstrates that ethanolic extracts exhibit stronger antibacterial activity compared to aqueous extracts. However, despite the relevance of the topic, the manuscript suffers from several **major methodological, analytical, and ethical concerns** that must be addressed before it can be considered for publication.

Major Concerns

1. Lack of Statistical Analysis

The study does not report:

- Replicates (n values)
- Standard deviation (SD) or standard error
- Any statistical test (e.g., ANOVA, t-test)

Results such as inhibition zones, MIC, and MBC values are presented without statistical validation.

Recommendation:

Include proper statistical analysis with mean $\pm$ SD and significance testing.

2. Questionable Control Results

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Ampicillin was used as a standard control but showed **no inhibition** for all strains.

This is scientifically unusual and requires clarification.

Recommendation:

Confirm whether strains are fully resistant

Include an additional **effective positive control antibiotic**

3. Reference Integrity Issues (Serious Concern)

Several references appear problematic:

- Future-dated citations (e.g., 2025, 2026)
- Some references may not be verifiable

This raises **ethical concerns regarding authenticity**

Recommendation:

Replace all questionable references with **valid, recent, peer-reviewed sources**

Ensure proper DOI and journal formatting

4. Methodological Weakness

No mention of:

- Number of experimental replicates
- Standard protocols (e.g., CLSI/EUCAST guidelines)

Extraction yield not reported

Phytochemical analysis is only qualitative (+, ++, +++)

Recommendation:

Include detailed reproducibility information

Add **quantitative phytochemical analysis**

5. Data Presentation Issues

Tables lack

- Statistical values
- Proper formatting consistency

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Typographical errors:

- Example: K. pneemoniae

Figures lack error bars and statistical indicators

Recommendation:

Revise all tables and figures to meet journal standards.

Minor Concerns

1. Language and Grammar

- Several grammatical and typographical errors throughout the manuscript
- Some sentences are repetitive and lack scientific precision

Recommendation

Professional English editing is required.

2. Discussion Section

Lacks:

- Depth of mechanistic explanation
- Critical comparison with existing literature

No **limitations section** included

Recommendation

Expand discussion and include study limitations.

3. Formatting Issues

- Inconsistent referencing style
- Formatting not fully aligned with journal guidelines

Strengths of the Study

- Relevant topic addressing antimicrobial resistance
- Use of clinically isolated multidrug-resistant strains
- Comparative evaluation of aqueous vs ethanolic extracts
- Clear indication of bactericidal activity ($MBC/MIC \leq 4$)

Conclusion

The manuscript has scientific potential but currently lacks the methodological rigor, statistical validation, and reference reliability required for publication. Major revisions are necessary to improve the scientific quality and credibility of the study.

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