

REVIEWER'S REPORT

Manuscript No.: IJAR-59164

Title: Anti-inflammatory activity of aqueous extracts from the fruits of two tomato varieties cultivated in Côte d'Ivoire.

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 ID: JP085

Reviewer's Comment for Publication.

The study evaluates the anti-inflammatory activity of aqueous extracts prepared by maceration and decoction from two tomato varieties in carrageenan-induced paw edema in rats. The study also examines hematological parameters. The extracts showed reduction in paw edema, with the Locale Côtelette macerate (25 mg/kg) showing the highest reported inhibition. However, the study has a small sample size and several methodological and reporting limitations.

Strength:

1. The topic is relevant and interesting.
2. Two tomato varieties were compared.
3. Both maceration and decoction methods were studied.
4. A standard carrageenan-induced edema model was used.
5. Ibuprofen was included as a reference treatment.
6. Different extract doses were evaluated.
7. Hematological parameters were assessed.

Weakness:

1. The study duration is very short, with observations mainly up to 3 hours.
2. The exact extraction yield is not reported.
3. The chemical composition of the extracts was not analyzed.
4. The amount of lycopene and polyphenols in the extracts was not measured.
5. The method of randomization and animal allocation is not clearly described.
6. Ethical approval for animal experimentation is not mentioned

Overall assessment:

The study presents useful preliminary evidence of anti-inflammatory activity of aqueous extracts from two tomato varieties. However, major revision is required, particularly regarding animal ethics,

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experimental methodology, statistical analysis, extract characterization, safety evaluation, and interpretation of the results.

Recommendation: Manuscript accepted for publication after major revision.