



REVIEWER'S REPORT

Manuscript No.: IJAR-50734

Date: 20-03-2025

Title: In vitro anti-sickling activities of Sorghum bicolor (L.) Moench

Recommendation:

- Accept as it is.....**YES**.....
- Accept after minor revision.....
- Accept after major revision
- Do not accept (*Reasons below*)

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

Reviewer's Name: Dr Aamina

Reviewer's Decision about Paper: **Recommended for Publication.**

Comments (*Use additional pages, if required*)

Reviewer's Comment / Report

Abstract Review

The abstract effectively presents the study's objective, methodology, and key findings. It provides a clear rationale for investigating *Sorghum bicolor* as a potential phytotherapy for sickle cell disease (SCD). The identification of phytochemical constituents and the description of the anti-sickling activity of different fractions are well-articulated. The study's relevance is emphasized through its focus on a widely available plant with traditional medicinal applications. The concise and informative nature of the abstract ensures clarity for the reader.

Introduction Review

The introduction thoroughly contextualizes SCD, detailing its genetic basis, pathophysiology, and prevalence in specific regions, particularly in India. The discussion on current clinical

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treatments and their limitations effectively establishes the need for alternative therapies. The section logically progresses to the potential role of medicinal plants in SCD management, highlighting the historical use of natural compounds in traditional medicine. The inclusion of *Sorghum bicolor*'s phytochemical profile further strengthens the study's justification, providing a scientific basis for its exploration as an anti-sickling agent.

Overall Assessment

The paper presents a well-structured and scientifically sound discussion on the potential of *Sorghum bicolor* in SCD management. The integration of phytochemical analysis, traditional medicinal knowledge, and therapeutic relevance makes it a valuable contribution to phytotherapy research. The study aligns with contemporary efforts to identify plant-based alternatives for genetic and hematological disorders.