

REVIEWER'S REPORT

Manuscript No.: IJAR-53525

Date: 23/08/2025

Title: *Paradoxical reaction on HIV-negative spinal tuberculous arachnoiditis patient: A case report*

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

Date: 23/08/2025

Reviewer's Comment for Publication:

The case report effectively illustrates that paradoxical reactions can complicate TB treatment even in immunocompetent individuals, including those with CNS involvement such as spinal arachnoiditis. It highlights the importance of careful clinical and radiological evaluation to distinguish disease progression from drug resistance or treatment failure. Prompt recognition and appropriate management, as demonstrated, can lead to favorable outcomes. The report underscores the need for clinicians to remain vigilant regarding paradoxical reactions during TB therapy and suggests ongoing research into the mechanisms and optimal management strategies for such cases.

Reviewer's Comment / Report

Strengths:

- **Detailed Clinical Description:** The paper offers a thorough account of the patient's clinical presentation, including neurological symptoms, imaging findings, and treatment course.
- **Imaging Evidence:** It provides diagnostic imaging (CT, MRI) that clearly demonstrates spinal arachnoiditis and hydrocephalus, aiding understanding of disease progression.
- **Focus on HIV-negative Population:** The case highlights that paradoxical reactions can occur even in immunocompetent HIV-negative patients, emphasizing the importance of awareness and vigilant monitoring.
- **Discussion of Paradoxical Reaction:** The report discusses the concept of paradoxical reactions in TB, referencing relevant literature, and underscores the importance of early diagnosis and management.
- **Follow-up and Outcome:** The patient's improvement over the treatment course and discharge details offer insights into effective management strategies.

Weaknesses:

- **Limited Generalizability:** As a single case report, findings cannot be generalized to the broader patient population.
- **Lack of Long-term Follow-up Data:** The report does not provide long-term follow-up outcomes beyond discharge, which would be beneficial to assess the prognosis.
- **Treatment Details:** The specifics of the adjuvant therapy, including exact drugs, dosages, and duration, are not thoroughly detailed.
- **Pathophysiological Explanation:** The manuscript could benefit from a deeper discussion on the immunopathology underlying paradoxical reactions in immunocompetent patients.
- **Literature Context:** The discussion could be strengthened with comparison to similar cases or a review of incidence rates of paradoxical reactions in HIV-negative patients.