



REVIEWER'S REPORT

Manuscript No.: IJAR- 50768

Date: 22/03/2025

Title: "The Prevalence of Tuberculosis Among Patients with Silicosis in the Southeastern Part of Rajasthan, India"

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: 24/03/2025

Reviewer's Comment for Publication:

This study provides strong evidence that silicosis patients are at an extremely high risk of developing tuberculosis (TB). The 74% TB prevalence rate among silicosis patients highlights an urgent need for preventive healthcare measures in mining regions.

Reviewer's Comment / Report

Strengths of the Study

- **Relevant Public Health Significance:** The study addresses an important occupational health issue, highlighting the high burden of TB among silicosis patients in mining areas.
- **Strong Diagnostic Approach:** The use of multiple TB detection methods (AFB smear, GeneXpert, and culture tests) improves the accuracy of TB diagnosis.
- **Large Sample Size:** 120 patients provide a strong dataset to analyze the association between silicosis and TB.
- **Geographic Focus:** The study specifically targets mining districts in Rajasthan, offering localized data for regional health policy planning.
- **Mortality Analysis:** The study tracks patient outcomes, including hospitalized cases and mortality rates, adding depth to its findings.
- **Recommendations for Policy Implementation:** The study advocates for regular health check-ups, safety education, smoking bans, and mandatory use of PPE, offering practical solutions to reduce disease burden.

Weaknesses of the Study

- **Single-Region Study:** The study only covers southeastern Rajasthan, limiting its generalizability to other mining regions in India.

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- **Lack of Histopathological Confirmation:** Bronchoscopy and lung biopsy were not performed due to financial and procedural constraints, which could have strengthened diagnostic accuracy.
- **No Long-Term Follow-Up:** The study does not track TB progression or long-term health outcomes in silicosis patients.
- **No Control Group:** A comparison with healthy silica-exposed workers or non-mining populations could have provided stronger epidemiological insights.
- **Confounding Factors Not Fully Addressed:** While smoking is mentioned as a risk factor, the study does not analyze other contributing factors like nutrition, socioeconomic status, or comorbidities (e.g., diabetes, alcohol use).