

REVIEWER'S REPORT

Manuscript No.: IJAR-59452

Title: Spontaneous Pneumothorax Complicating Pulmonary Sarcoidosis: A Case Report,

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision ...YES...

Do not accept (*Reasons below*)

Rating

Originality

Techn. Quality

Clarity

Significance

Excel.	Good	Fair	Poor
		☐	
		☐	
	☐		
		☐	

Reviewer's ID: JPR- 094

Detailed Reviewer's Report

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Title: Spontaneous Pneumothorax Complicating Pulmonary Sarcoidosis: A Case Report

1. Strengths

1. The manuscript describes a clinically important and relatively uncommon complication of pulmonary sarcoidosis, particularly in patients with advanced fibrotic disease.
2. The case presentation provides relevant clinical information, including symptoms, physical examination findings, pulmonary function test results, radiological findings, histopathology, and treatment history.
3. The authors describe the management pathway from chest tube drainage to surgical resection of subpleural bullae following incomplete resolution.
4. The postoperative outcome is favorable, with complete lung re-expansion and no recurrence reported during three months of follow-up.

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5. The discussion addresses plausible pathophysiological mechanisms, treatment options, and recurrence risk.
6. Patient consent, conflicts of interest, funding, and author contributions are appropriately addressed.

2. Weaknesses

- **Limited novelty:** The association between spontaneous pneumothorax and pulmonary sarcoidosis, including its occurrence in advanced fibrotic disease, has already been documented in the literature.
- **Insufficient diagnostic detail:** Although histopathological findings are reported, the manuscript should clarify how alternative causes of granulomatous lung disease were excluded and whether the diagnosis satisfies accepted diagnostic criteria for sarcoidosis.
- **Incomplete surgical information:** The precise surgical procedure, operative findings, method of bullae resection, use of pleurodesis, and presence or absence of persistent air leakage are insufficiently described.
- **Limited follow-up:** Three months of follow-up is relatively short for assessing recurrence and long-term outcomes in a patient with advanced pulmonary fibrosis.
- **Limited discussion of differential diagnosis:** The occupational exposure to dust and mold warrants clarification, particularly regarding the exclusion of relevant infectious and occupational lung diseases.
- **Minor editorial issues:** The manuscript contains repetitive wording in the figure captions, inconsistent spacing, and minor formatting errors. The phrase “complete lung re-expansion” should be used consistently where appropriate.

3. Key Points Requiring Revision

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- **Establish the novelty of the case:** Clearly explain what distinguishes this case from previously published reports, rather than relying solely on the rarity of pneumothorax in sarcoidosis.
- **Clarify the diagnostic work-up:** Provide available microbiological investigations and other relevant findings supporting sarcoidosis and excluding alternative granulomatous diseases.
- **Expand the surgical details:** State the exact procedure performed, the reason for surgery after 14 days of drainage, whether an air leak persisted, and whether pleurodesis was performed.
- **Clarify the radiological findings:** Include relevant CT findings, if available, particularly the distribution of fibrosis, bullae, and any cystic or cavitary lesions.
- **Improve the discussion:** Compare the present case with previously reported cases and explain whether the clinical course or management provides a distinct learning point.
- **Verify the references:** Check the accuracy and relevance of all references, ensure that the reported incidence is appropriately supported, and update the literature review where necessary.
- **Review the figures and captions:** Ensure that all images are original, adequately labelled, of suitable quality, and consistent with the description in the text.

4. Significance of the Study

The manuscript highlights an important clinical consideration: spontaneous pneumothorax can complicate advanced fibrotic pulmonary sarcoidosis, even when the patient's inflammatory symptoms appear to be improving with corticosteroid treatment. The case illustrates the potential need for surgical intervention when chest tube drainage does not achieve satisfactory resolution.

The report may be useful to clinicians managing patients with advanced interstitial lung disease by emphasizing the importance of prompt recognition, appropriate intervention, and follow-up. However, its scientific contribution is primarily educational and illustrative rather than a demonstration of a new mechanism, diagnostic approach, or treatment strategy.

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5. Recommendation

Recommendation: Major Revision

The manuscript addresses a relevant clinical problem and provides a reasonably detailed account of diagnosis, management, and short-term outcome. Nevertheless, its originality and added clinical value are limited by the existing literature on pneumothorax complicating pulmonary sarcoidosis.

Major revision is recommended to strengthen the description of the diagnostic work-up and surgical management, clarify the exclusion of alternative diagnoses, improve the comparison with previously published cases, and establish the specific clinical lesson contributed by this report. The authors should also correct editorial inconsistencies and verify the supporting references.

If the authors cannot demonstrate a meaningful case-specific contribution after revision, the manuscript may not meet the novelty threshold of a journal with stringent case-report selection criteria.

Overall assessment: The case is potentially suitable for publication in a clinical case-report journal after substantial revision, provided that the clinical documentation is adequate and the authors establish its distinct educational value.

The recommendation for Major Revision is justified because the manuscript has several scientific and reporting gaps that prevent the reviewer from adequately assessing the diagnosis, surgical decision-making, originality, and clinical significance. The recommendation is not based merely on grammar or formatting.

Below is a line-by-line reviewer report identifying the issue, reason, and required correction, with manuscript line numbers for the authors.

DETAILED REVIEWER'S COMMENTS WITH JUSTIFICATION FOR MAJOR REVISION

Manuscript title: *Spontaneous Pneumothorax Complicating Pulmonary Sarcoidosis: A Case Report*

Recommendation: Major Revision

1. Abstract

Line(s)	Issue identified	Reason / justification	Required revision
4–7	The background is general and does not establish the specific knowledge gap.	The association between pneumothorax and advanced pulmonary sarcoidosis is already documented. The manuscript does not explain what new clinical insight this case provides.	State the specific educational or clinical feature that distinguishes this case from previously reported cases.
8–14	The clinical course and treatment outcome are summarized, but important management details are missing.	The abstract does not clarify why surgery was necessary, whether a persistent air leak was present, or what surgical procedure was performed.	Briefly specify the indication for surgery, the procedure performed, and the principal outcome, provided these details are available.
12–14	Follow-up is limited to	Absence of recurrence over three	Clearly describe this as a

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	three months.	months demonstrates short-term stability but does not establish long-term freedom from recurrence.	short-term outcome and avoid implying durable prevention of recurrence.
15–18	The claimed contribution is not clearly differentiated from existing literature.	The discussion of mechanisms and management is largely established knowledge rather than a clearly identified new contribution.	Explain the particular clinical lesson learned from this case.

2. Introduction

Line(s)	Issue identified	Reason / justification	Required revision
22–26	The introduction provides general information about sarcoidosis but lacks a focused literature review.	The rationale for publishing another case report is not adequately established.	Briefly summarize existing evidence on pneumothorax in sarcoidosis and identify the specific gap or unusual clinical feature addressed by this case.
24–25	Treatment statements are broad and potentially oversimplified.	Treatment selection in sarcoidosis depends on organ involvement, severity, progression, and treatment indications.	Qualify the statements and support them with appropriate contemporary references.

3. Case Presentation

Line(s)	Issue identified	Reason / justification	Required revision
28–31	Relevant clinical history is incomplete.	The duration of respiratory symptoms, smoking status, previous respiratory episodes, and details of occupational exposure are not sufficiently developed. Dust and mold exposure may be relevant to alternative diagnoses.	Provide additional available clinical history, including exposure details and relevant previous pulmonary investigations.
32–36	The diagnostic basis for sarcoidosis requires further clarification.	Granulomatous inflammation without caseous necrosis and bronchoalveolar lavage lymphocytosis are supportive findings but are not individually specific for sarcoidosis.	Describe the diagnostic criteria used and clarify how alternative infectious, occupational, and other granulomatous diseases were excluded, based on investigations actually performed.
34–36	The basis for assigning radiological stage IV is insufficiently described.	Stage IV pulmonary sarcoidosis generally refers to pulmonary fibrosis in the context of the Scadding radiographic classification. The reported interstitial pattern alone does not adequately demonstrate the classification.	Provide the relevant chest radiographic or CT findings supporting stage IV disease.
37–38	Corticosteroid treatment is insufficiently	The dose, treatment duration, dose-reduction schedule, and indication for treatment are not reported. These	Report the corticosteroid agent, dose, duration, and tapering schedule, if available.

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	documented.	details are relevant when discussing disease control and the occurrence of pneumothorax during treatment.	
39–42	Pulmonary function results are reported without sufficient clinical interpretation.	The values demonstrate substantial impairment, but their relationship to the patient's baseline status and the interpretation of the mixed ventilatory defect are not discussed.	State when the tests were performed relative to the acute pneumothorax and provide available predicted values and interpretation.
43–46	Severe hypoxemia is reported without details of immediate stabilization.	An oxygen saturation of 75% on room air represents severe hypoxemia. The initial respiratory support and response to emergency treatment are important for assessing clinical management.	Describe oxygen administration, respiratory support, and the patient's response to initial stabilization, as documented in the clinical record.
47–58	Figure 1 and its caption are repetitive, and the radiographic evidence is insufficiently described in the text.	The same finding is stated twice, while the image interpretation lacks additional details that would help readers assess the extent of pneumothorax.	Remove repetition and describe the key radiographic features. Ensure the image is clear, properly labelled, and consistent with the text.
59–62	Chest tube management is inadequately documented.	The tube insertion site is provided, but tube size, drainage characteristics, air-leak status, suction or water-seal management, and subsequent clinical response are not described.	Provide relevant drainage details and serial imaging findings, if available.
63–66	The indication for surgery after 14 days is insufficiently established.	Slow improvement and a small residual apical pneumothorax do not, by themselves, explain the precise surgical indication. The presence of persistent air leakage, incomplete expansion, or another reason is not stated.	Specify the actual indication for surgery, including whether persistent air leak, failure of adequate re-expansion, recurrent pneumothorax, or another clinical concern prompted intervention.
65–69	The surgical procedure is described too briefly.	“Resection of superficial bullae” does not identify the exact operative technique, the extent of resection, whether pleurodesis was performed, or relevant operative findings.	Describe the procedure accurately, including the operative approach, bullae location, method of resection, pleural intervention if any, and postoperative drainage management.
70–74	Postoperative assessment and follow-up are limited.	The report gives the immediate radiographic outcome and three follow-up time points but does not provide sufficient information about symptoms, respiratory support, chest tube removal, complications, or subsequent treatment.	Add available postoperative clinical details and clarify the duration and method of follow-up. Do not infer or invent missing outcomes.

4. Discussion

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Line(s)	Issue identified	Reason / justification	Required revision
77–80	The stated incidence of approximately 1–2% requires careful contextualization.	Estimates may vary according to the population, study design, and source. The cited literature should directly support the figure and its context.	Verify the incidence estimate against the cited references and specify the relevant evidence or population where appropriate.
81–87	The proposed mechanisms are discussed generally without sufficient case-specific correlation.	Subpleural bullae were observed during surgery, but the manuscript does not establish whether a ruptured bulla was identified as the actual source of the pneumothorax.	Distinguish observed operative findings from proposed mechanisms. Avoid presenting a presumed mechanism as proven without supporting evidence.
83–85	The comparison with neurofibromatosis type 1 is insufficiently justified.	This comparison is not directly necessary to explain the current case and may distract from the central association between sarcoidosis and pneumothorax.	Provide a clear reason for including the comparison or remove it and expand the discussion of sarcoidosis-specific evidence.
85–87	The explanation for slow recovery is speculative.	Poor lung compliance and chronic parenchymal remodelling are plausible explanations, but the manuscript does not provide direct evidence that these factors caused the slow recovery in this patient.	Present this interpretation as a possible explanation and support it with relevant evidence.
88–92	The relationship between corticosteroid treatment and pneumothorax is not fully analysed.	The patient developed pneumothorax despite reported clinical improvement, but there is insufficient information to determine whether treatment response, disease progression, or structural fibrosis influenced the event.	Discuss the observation cautiously and avoid implying a causal relationship that cannot be established from a single case.
93–98	Management recommendations are not adequately linked to the actual clinical decision.	The discussion mentions drainage, pleurodesis, surgery, and recurrence, but it does not explain how the reported patient's clinical findings supported the chosen intervention.	Connect the literature to the specific indication for surgery and discuss relevant alternatives without claiming that the case establishes a general treatment recommendation.
96–98	The statement about corticosteroids and recurrence needs precise interpretation.	The report does not provide evidence that corticosteroids either prevented or increased recurrence in this patient.	Separate the general evidence from the patient's outcome and ensure the cited source supports the claim.
99–103	The clinical implications are broad and largely reiterate established knowledge.	The conclusion that pneumothorax should be considered in advanced pulmonary sarcoidosis is clinically reasonable but does not establish the unique contribution of this case.	Identify the specific diagnostic, therapeutic, or educational lesson supported by the documented clinical course.

5. Conclusion

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105– 107	The conclusion largely repeats the abstract and discussion.	It does not clearly identify what readers should learn from this particular case beyond the established association between advanced sarcoidosis and pneumothorax.	Provide a concise, case-specific conclusion that reflects the documented indication for surgery, observed outcome, and limitations of short-term follow-up.

6. Declarations and References

Line(s)	Issue identified	Reason / justification	Required revision
110– 111	Patient consent is declared, but the consent process cannot be independently assessed from the statement alone.	Publication of clinical images requires appropriate consent and protection of patient confidentiality.	Ensure that written consent covers publication of the case and identifiable clinical images, according to journal policy.
117– 118	Author contributions are described collectively.	The statement does not identify individual contributions, although this may be acceptable under some journal policies.	Follow the target journal's authorship and contribution requirements, identifying individual roles where required.
122– 127	The principal references are relevant but relatively limited in number and publication date.	The manuscript relies substantially on established publications and does not demonstrate whether more recent case reports or reviews were considered.	Conduct an updated literature search and incorporate directly relevant publications, especially those that help establish the originality of the case.
128– 129	Reference 4 concerns pneumothorax in neurofibromatosis type 1 rather than sarcoidosis.	The reference may support a general comparison but does not directly substantiate sarcoidosis-specific mechanisms or management.	Retain it only if the comparison is clinically justified and the cited claim is supported by the article.
130– 131	The textbook reference lacks complete bibliographic detail.	The chapter title and edition are given, but the citation may not meet the journal's required format.	Verify the chapter authorship, page range, and other details required by the journal style.

7. Overall Justification for Major Revision

The manuscript describes a clinically relevant complication and reports a favorable short-term outcome. However, several issues currently limit its scientific interpretability and suitability for publication:

The novelty and distinct clinical contribution are not adequately established.

The diagnostic work-up and exclusion of alternative granulomatous diseases require clarification.

The indication for surgery and the technical details of the intervention are insufficiently reported.

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The proposed mechanism of pneumothorax and the explanation for slow recovery are not clearly distinguished from speculation.

The management discussion is not adequately connected to the actual clinical decision-making in this patient.

The literature review and presentation require strengthening before the report's contribution can be evaluated reliably.

These issues concern clinical interpretation, reproducibility of the case description, and scientific contribution—not merely language editing.

Final recommendation: MAJOR REVISION

The authors should provide a substantially improved case description, clarify the diagnostic and surgical details, strengthen the literature comparison, and identify the specific clinical lesson contributed by the case. Reassessment after revision is warranted.

If the requested clinical details are unavailable or the authors cannot establish a meaningful contribution beyond previously reported cases, rejection may ultimately be more appropriate than further revision.

Important note for the reviewer

A major-revision decision is defensible if these deficiencies are material and the journal permits revision. Some points—such as CT findings, persistent air leak, pleurodesis, and postoperative details—are information gaps in the supplied manuscript, not proof that the authors performed inadequate care.