

REVIEWER'S REPORT

Manuscript No.: IJAR-56668

Title: Spontaneous Pneumomediastinum Revealing Diffuse Cystic Lung Disease in a Young Woman: A Case Suggestive of Lymphangioleiomyomatosis

Recommendation:

Accept after major revision

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

Reviewer's ID: JPR-198

Detailed Reviewer's Report

This manuscript presents a case of spontaneous pneumomediastinum in a young woman, which led to the detection of diffuse cystic lung disease suggestive of lymphangioleiomyomatosis (LAM). The topic is clinically relevant, and the case has educational value. However, the manuscript requires improvements in diagnostic depth, reporting clarity, and scientific rigor.

Major Comments

1. Incomplete Diagnostic Workup — The Diagnosis Remains Unconfirmed

This is the most critical flaw. The title and conclusion state the case is "suggestive of" LAM, which is acceptable framing, but the manuscript never reports whether confirmatory testing was ultimately performed or what the outcome was at the referral center. For a publishable case report, the reader expects a diagnostic conclusion. At minimum, the authors must report:

- Whether serum VEGF-D was measured (the authors themselves cite it as a potential biopsy-sparing biomarker, yet do not mention ordering it)
- Whether TSC1/TSC2 genetic mutation screening was pursued
- Whether a lung biopsy was eventually performed
- The outcome of the referral to the specialized center

As submitted, the case ends at referral — this is insufficient for publication.

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2. Differential Diagnosis Is Insufficiently Developed

The authors mention diffuse cystic lung diseases briefly (LAM, pulmonary Langerhans cell histiocytosis, Birt-Hogg-Dubé syndrome) but do not systematically apply the differential to this specific patient. Given that the diagnosis of LAM was not histologically or serologically confirmed, a structured differential analysis is essential. Notably:

- Pulmonary Langerhans cell histiocytosis was not excluded (the patient's smoking status is mentioned as "nonsmoker," which reduces but does not eliminate this possibility)
- Birt-Hogg-Dubé syndrome should be discussed more substantively — it also presents with bilateral cysts and spontaneous pneumothorax/pneumomediastinum, and genetic testing is required to exclude it
- The negative abdominal CT for renal angiomyolipoma is mentioned but not contextualized: its absence does not exclude LAM (sensitivity is imperfect, particularly early in disease)

3. Pulmonary Function Data Requires Contextualization

The reported PFT values (FEV₁ 27%, VC 23%) represent extremely severe functional impairment, arguably disproportionate to a 22-year-old presenting with what initially appeared to be a benign episode. The authors do not comment on this discrepancy or explore why such advanced functional impairment was clinically silent prior to presentation. Was there a history of gradually worsening exercise tolerance? Was the patient truly asymptomatic before this episode? This disconnect deserves explicit discussion and strengthens the argument for the chronically progressive but underdiagnosed nature of LAM — a teaching point the authors miss.

Incomplete and Non-Standard References

All nine references are listed without complete bibliographic data — volume numbers, issue numbers, page numbers, and publication years are entirely absent. This is unacceptable in any peer-reviewed journal. References must comply with the journal's citation style completely.

Minor Comments

Case Presentation — Missing Details

- The patient's height and weight (BMI) are not reported, despite being relevant to respiratory physiology and LAM risk profiling
- It is not stated whether a family history of tuberous sclerosis complex (TSC) was sought, which is directly relevant to LAM etiology
- The time interval between the initial presentation and the follow-up CT revealing cysts is not specified

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Figure Quality and Legends

The CT images are of acceptable diagnostic quality for a case report, but the legends are minimal. Figure 4 in particular — the key image showing the bilateral cysts — should include a description of the specific CT characteristics (cyst size, distribution, wall thickness, absence of ground-glass opacity) that support the LAM diagnosis over other cystic diseases.

Ethical Statement and Patient Consent

There is no mention of informed consent having been obtained from the patient for case publication, nor of institutional ethics committee approval or waiver. This is mandatory and must be added.