



### REVIEWER'S REPORT

Manuscript No.: IJAR-50888

Date: 04-04-2025

**Title: Cryo-bronchoscopy Breakthrough: A Rare Bronchial Mucoepidermoid Carcinoma Success Report'**

**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**

The case report, "*Cryo-bronchoscopy Breakthrough: A Rare Bronchial Mucoepidermoid Carcinoma Success Report*," presents a compelling account of a rare bronchial mucoepidermoid carcinoma (MEC) successfully managed using a minimally invasive cryo-bronchoscopy technique. The report provides a thorough clinical, pathological, and interventional assessment, making it a valuable contribution to the existing literature on rare pulmonary neoplasms.

#### **Abstract Review**

The abstract effectively summarizes the case and underscores the rarity of bronchial MEC, which accounts for only 0.1–0.2% of primary lung cancers. The **concise clinical background, clear diagnostic approach, and emphasis on cryo-bronchoscopy as a viable alternative to**

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**conventional surgery** enhance the significance of the report. The structured presentation, with clear differentiation between background, case presentation, and conclusion, ensures readability and scientific clarity.

### Background Review

The background section is well-articulated, providing a solid foundation for understanding the clinical significance of bronchial MEC. The description of its classification into **low- and high-grade forms** is relevant, as it contextualizes the therapeutic approach. Additionally, the discussion on its **histogenesis, symptoms, and the challenges in establishing management protocols** is comprehensive. The section is supported by appropriate references, reinforcing its scientific rigor.

### Case Presentation Review

The case presentation is detailed, methodically structured, and clinically informative.

- The **patient's history, including exposure to petrochemicals but no history of smoking, adds valuable insight into potential risk factors.**
- The **thorough clinical examination and imaging findings (chest X-ray, CECT, and PET scan) establish a strong diagnostic foundation.**
- The **bronchoscopic findings, including the extent of airway obstruction and lesion characteristics, are clearly detailed.**
- The **use of cryo-biopsy for both diagnostic and therapeutic purposes is particularly noteworthy, highlighting the dual role of cryo-bronchoscopy in such cases.**
- The **histopathological and immunohistochemical analysis is well-explained, reinforcing the diagnostic accuracy.**

The procedural details of the **successful airway recanalization using a 1.9 mm cryoprobe** are meticulously documented, with emphasis on achieving **oncological radicality without additional surgical interventions**. The post-procedure follow-up, confirming disease-free status at three months, provides strong evidence for the effectiveness of cryo-bronchoscopy.

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### Figures and Imaging Review

The report's integration of radiological (CECT, PET scan) and histopathological (H&E staining, immunohistochemistry) findings enhances its comprehensiveness. The sequential presentation of **pre-treatment imaging, intraoperative bronchoscopy, and follow-up findings** strengthens the credibility of the therapeutic outcome.

### Conclusion Review

The conclusion succinctly reinforces the key message of the study:

- Cryo-bronchoscopy is a promising alternative to traditional surgical approaches for early-stage bronchial MEC.
- The procedure is minimally invasive yet effective in achieving complete airway recanalization.
- Further research is needed to standardize treatment guidelines for this rare malignancy.

### Overall Assessment

This case report is an **exemplary contribution to interventional pulmonology and oncological literature**, demonstrating the feasibility of cryo-bronchoscopy as a first-line approach in early-stage bronchial MEC. The **structured methodology, comprehensive diagnostic workup, and well-documented therapeutic success** make it a high-quality clinical case study.

By providing **detailed clinical insights, histopathological correlation, and procedural efficacy**, this report enhances the understanding of **rare bronchial malignancies** and presents a **strong argument for minimally invasive therapeutic advancements in pulmonology and oncology**.