

## Supplements

Supplementary table 1: Histopathological examination report of our case report

**Age:** 28

**Gender:** Male

**Clinical Diagnosis:** Left main bronchus mass.

**Nature of Specimen:** Resection of the distal part of left main bronchus, hilar & interlobar lymph nodes, subcarinal lymph nodes, extra safely margin at posterior wall of left lower lobe bronchus, extra safely margin of left main bronchus, nodule at the superior segment of left lower lobe.

### PATHOLOGY REPORT

**Gross:**

Six containers were received.

1- Bronchial segment of distal part of left main bronchus: A flattened piece of bronchial wall measured 3.5x2.5x1.5 cm showing a polypoidal mass measured 3.2x2x1 cm with soft greyish white cut section and smooth surface, located at 0.1 cm from the least side bronchial margin and 0.3 cm from the deep margin. totally submitted.

2- Hilar and inter-lobar lymph nodes: Five lymph nodes, the largest measured 2.5x1x1 cm, all showed blackish soft cut section.

3- Subcarinal lymph nodes: Six lymph nodes, the largest measured 1.5x1 x1 cm with greyish while cut section with blackish dots.

4- Extra safety margin of posterior wall of left lower lobe bronchus: Multiple firm greyish while tissue pieces, collectively measured 1x1 cm.

5- Extra safety margin of left main bronchus: Multiple firm greyish white tissue pieces, collectively measured 1.3x0.3x0.2 cm

6- Nodule at the superior segment of left lower lobe. Single soft nodule measured 1x1x0.4 cm with soft cut section.

**Microscopic:**

Sections examined from the specimen (1) received revealed bronchial wall infiltrated by tumor tissue formed of monotonous cells with rounded nuclei showing stippled chromatin and eosinophilic cytoplasm arranged in trabeculae and nests The surface epithelium is ulcerated with underlying secondary infection and foreign body giant cell reaction. Mitosis 1/10 HPF. No punctate necrosis. Lymphovascular space invasion is present.

The tumor infiltrates full thickness of the bronchial wall cartilage and infiltrating the adjacent lung tissue.

Free bronchial margin. Free resection margin. Free one attached lymph node.

Sections examined from the specimen (2) received revealed metastatic deposits in 2 out of 5 lymph nodes with no extranodal extension.

Sections examined from the specimen (3) received revealed metastatic deposits in 1 out of 6 lymph nodes with no extranodal extension.

Sections examined from the specimen (4) received revealed free extra safety margin.

Sections examined from the specimen (5) received revealed free extra safety margin.

Sections examined from the specimen (6) received revealed free congested lung tissue.

**Immunohistochemistry:**

- Chromogranin: Positive
- Synaptophysin: Positive
- Ki-67: Low proliferative index (<5%)

**Diagnosis:**

**1- Bronchial segment of distal part of left main bronchus, Resection, FINDINGS ARE COMPATIBLE WITH TYPICAL CARCINOID TUMOR / NEUROENDOCRINE TUMOR**

**GRADE I, FREE BRONCHIAL MARGIN, FREE SURGICAL MARGINS, FREE REACTIVE ATTACHED LYMPH NODE [0/1].**  
**IMMUNOHISTOCHEMISTRY revealed positive Chromogranin and Synaptophysin and low proliferative index (Ki-67 (<5%)).**  
**2- Hilar and interlobar lymph nodes, POSITIVE LYMPH NODE METASTASIS, L.N 2/5 WITH NO EXTRA NODAL EXTENSION.**  
**3 – Subcarinal lymph nodes, POSITIVE LYMPH NODE METASTASIS, L.N 1/6 WITH NO EXTRA NODAL EXTENSION.**  
**4- Extra safety margin at posterior wall of left lower lobe bronchus, FREE EXTRA MARGIN.**  
**5- Extra safety margin of left main bronchus, FREE EXTRA MARGIN.**  
**6- Nodule at the superior segment of left lower lobe, FREE CONGESTED LUNG TISSUE.**  
**- Tumor stage: pT2a , pN2.**

Supplementary table 2: Bronchoplasty and sleeve resection

Bronchoplasty and sleeve resection are both types of lung-sparing operations that involve the lungs and bronchus:

- **Bronchoplasty**  
Involves removing and reconstructing a lobar bronchial orifice without removing a segment of the main bronchus. Bronchoplasty is more technically demanding than standard pulmonary resections, but it can preserve a significant amount of lung function.
- **Sleeve resection**  
Involves removing a circumferential portion of a central bronchus. Sleeve resection can be used to treat benign endobronchial tumors, bronchostenosis, tumors with low-grade malignant potential, and some cases of carcinoma.

Bronchoplasty can be performed after other lung procedures, such as sleeve resection, to reconstruct the bronchus.

Other types of bronchoplastic procedures include:

- **Sleeve segmentectomy:** A segmental level bronchoplasty
- **Extended sleeve lobectomy:** A segmental level bronchoplasty
- **Wedge bronchoplasty:** An alternative to sleeve lobectomy for non-small cell lung cancer

Lung-sparing bronchoplasty is safer than more extensive surgeries, but it still carries a significant risk of complications.

## References related to this table:

1. M GB, JI CC de la C, S CC, et al. Interrupted versus continuous suture for bronchial anastomosis in lung transplantation: does it matter? PubMed. Published online 2022. Accessed October 16, 2024. <https://pubmed.ncbi.nlm.nih.gov/36193995/>
2. Lee M, Razi SS. Pulmonary Sleeve Resection. In: StatPearls. StatPearls Publishing; 2024. Accessed October 16, 2024. <http://www.ncbi.nlm.nih.gov/books/NBK564400/>
3. Sleeve Resection/Bronchoplasty for Lung Cancer | Adult Chest Surgery, 2e | AccessSurgery | McGraw Hill Medical. Accessed October 18, 2024. <https://accesssurgery.mhmedical.com/content.aspx?bookid=1317&sectionid=72432296>

Supplementary table 3: CARE Checklist



## CARE Checklist of information to include when writing a case report



Topic	Item	Checklist item description	Reported on
<b>Title</b>	<b>1</b>	The diagnosis or intervention of primary focus followed by the words "case report" .....	Page 1
<b>Key Words</b>	<b>2</b>	2 to 5 key words that identify diagnoses or interventions in this case report, including "case report" ...	Page 3
<b>Abstract (no references)</b>	<b>3a</b>	Introduction: What is unique about this case and what does it add to the scientific literature? .....	Page 4-5
	<b>3b</b>	Main symptoms and/or important clinical findings .....	Page 6
	<b>3c</b>	The main diagnoses, therapeutic interventions, and outcomes .....	Page 6
	<b>3d</b>	Conclusion—What is the main "take-away" lesson(s) from this case? .....	Page 6
<b>Introduction</b>	<b>4</b>	One or two paragraphs summarizing why this case is unique ( <b>may include references</b> ) .....	Page 4-5
<b>Patient Information</b>	<b>5a</b>	De-identified patient specific information .....	Page 6
	<b>5b</b>	Primary concerns and symptoms of the patient .....	Page 6
	<b>5c</b>	Medical, family, and psycho-social history including relevant genetic information .....	Page 6
	<b>5d</b>	Relevant past interventions with outcomes .....	Page 6
<b>Clinical Findings</b>	<b>6</b>	Describe significant physical examination (PE) and important clinical findings .....	Page 7
<b>Timeline</b>	<b>7</b>	Historical and current information from this episode of care organized as a timeline .....	Page 7
<b>Diagnostic Assessment</b>	<b>8a</b>	Diagnostic testing (such as PE, laboratory testing, imaging, surveys) .....	Page 7
	<b>8b</b>	Diagnostic challenges (such as access to testing, financial, or cultural) .....	NA
	<b>8c</b>	Diagnosis (including other diagnoses considered) .....	Page 7
	<b>8d</b>	Prognosis (such as staging in oncology) where applicable .....	Page 11
<b>Therapeutic Intervention</b>	<b>9a</b>	Types of therapeutic intervention (such as pharmacologic, surgical, preventive, self-care) .....	Page 7-8
	<b>9b</b>	Administration of therapeutic intervention (such as dosage, strength, duration) .....	Page 8
	<b>9c</b>	Changes in therapeutic intervention (with rationale) .....	NA
<b>Follow-up and Outcomes</b>	<b>10a</b>	Clinician and patient-assessed outcomes (if available) .....	Page 9
	<b>10b</b>	Important follow-up diagnostic and other test results .....	Page 9
	<b>10c</b>	Intervention adherence and tolerability (How was this assessed?) .....	Page 8-9
	<b>10d</b>	Adverse and unanticipated events .....	Page 8-9
<b>Discussion</b>	<b>11a</b>	A scientific discussion of the strengths AND limitations associated with this case report .....	Page 10-12
	<b>11b</b>	Discussion of the relevant medical literature <b>with references</b> .....	Page 10-12
	<b>11c</b>	The scientific rationale for any conclusions (including assessment of possible causes) .....	Page 12
	<b>11d</b>	The primary "take-away" lessons of this case report (without references) in a one paragraph conclusion .....	Page 12
<b>Patient Perspective</b>	<b>12</b>	The patient should share their perspective in one to two paragraphs on the treatment(s) they received .....	Page 11-12
<b>Informed Consent</b>	<b>13</b>	Did the patient give informed consent? Please provide if requested .....	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Supplementary figure 1: Gross appearance of the resected tumor and bronchial wall

