# **Prompt:**

Assuming you are a radiation oncologist, please provide as detailed an analysis as possible of the following lung CT images, including anatomical structures and potential cancerous regions and features. You must give the possible T-Stage and N-Stage from these images.

## GPT-4V:

Certainly, let's analyze the images you provided.



First and foremost, I am not a radiation oncologist. However, I can provide a general analysis based on the CT images provided:

#### 1. Anatomical Structures Visible:

- Trachea: The central airway which splits into left and right mainstem bronchi.
- Lungs: There are two lungs visible; right and left. The right lung has three lobes (upper, middle, and lower) and the left lung has two lobes (upper and lower).
- **Heart:** The central cardiac structure is visible, mainly the left atrium and ventricle.
- **Blood Vessels:** Several vessels are visible, including the aorta and its major branches.
- **Bones:** The thoracic vertebrae, ribs, and sternum are seen.
- **Soft Tissues:** Musculature and other soft tissues around the thoracic region.

# 2. Potential Cancerous Regions and Features:

- Lung Nodules/Masses: In various slices, there appear to be opacities within the lung parenchyma which could be indicative of primary lung nodules or masses.
- Enlarged Lymph Nodes: There seem to be areas near the mediastinum that may represent enlarged lymph nodes, which could be indicative of nodal metastasis.
- **Irregular Borders**: Some of the masses/nodules have irregular borders, which is a characteristic often associated with malignancy.
- Cavitation: There is no clear evidence of cavitation within the masses.
- **Density**: The lesions have solid density, and there's no indication of ground-glass opacity.
- 3. **T-Stage and N-Stage** (based on TNM staging for non-small cell lung cancer):
  - T-Stage: The size and extent of the primary tumor is categorized by the T-stage. Given the size and location of the nodules/masses:
    - They seem to be greater than 3 cm but less than 5 cm and do not appear to invade any major structures. This could put the tumor in the range of T2a. However, this is a rough estimate and would need measurements and more specific imaging details.
  - **N-Stage**: Refers to the extent of regional lymph node involvement:
    - Enlarged mediastinal nodes could suggest N2 or N3 involvement. However, the exact staging would depend on the specific nodal stations involved and the size of the lymph nodes.

Please remember that this is a very preliminary and general analysis. It is essential to have a trained radiologist or oncologist review these images for a comprehensive and accurate assessment.

### **Reference answer:**

