INVESTIGATION OF LUNG CANCER

Investigation of lung cancer can be classified into:
• Investigation for primary tumor for cell type and staging
• Investigation for detection of metastases

Sputum cytology:
For detection of any malignant cells

Assessment of metastases by:
• Abdominal ultrasound.
• Bone survey.
• Bone scan.
• Brain CT.

Transthoracic needle aspiration:
For biopsy from peripheral lung lesion.

Chest X-ray: may show
• Area of collapse.
• Area of consolidation.
• Lung abscess: usually shaggy, thick walled with hilar enlargement.
• Mediastinal mass.
• Elevated diaphragm.
• Pleural effusion.

Computed tomography CT of the chest:
• For accurate localization and evaluation hilar and mediastinal lymph nodes for staging.

Positron emission tomography (PET) scan
• Fluorodeoxyglucose or FDG is injected IV
• It help for detection of early stage lung cancer or evaluation of metastases or LN if surgery may be a solution.

Fibreoptic bronchoscopy for:
• Endobronchial morphology of the tumor.
• Any widening of carina and distance of tumor from it for staging.
• Tissue diagnosis can be detected by biopsy brushing and bronchial washing.
• Evaluation of the vocal cords.

Mediastinoscopy:
For evaluation of mediastinal lymph nodes for staging

Pleural fluid cytology and pleural biopsy:
For diagnosis of any associated pleural effusion.

Laboratory investigations:
Hemoglobin percentage, ESR, liver function, serum Ca, serum alkaline phosphatase.