



REMARKS

1 Plain radiograph

- 1.1 Many primary lung cancers are initially detected on chest radiograph.
- 1.2 In certain instances, the chest radiograph alone is sufficient for staging, e.g. when an obvious metastatic bone lesion is detected or when large bulky contralateral mediastinal lymph nodes are present.
- 1.3 Chest X-ray (CXR) can be used to monitor treatment response if CT is not available.

2 CT

- 2.1 CT is the main imaging modality of choice for evaluating patients with bronchogenic carcinoma.
- 2.2 CT has limitations in staging since there are no morphologic criteria to distinguish between benign and malignant lymph nodes, with low sensitivity and specificity in detecting nodal metastasis.
- 2.3 CT should include the adrenal glands.
- 2.4 CT has limited value in detecting chest wall and mediastinal invasion.

3 Fluorodeoxyglucose (FDG) PET-CT

- 3.1 Whole body FDG PET-CT is the preferred imaging modality for staging of non-small cell lung cancer in patients who are planned to be treated with curative intent.
- 3.2 FDG PET-CT has better sensitivity and specificity than CT alone in identification of nodal metastases with an overall sensitivity of 80–90% and specificity of 85–95%.
- 3.3 FDG PET-CT detects ~24% occult extrathoracic metastases in patients who are initially planned to undergo curative resection.
- 3.4 It decreases the number of futile thoracotomy by an additional 21%.
- 3.5 FDG PET-CT is an excellent tool for monitoring of treatment response.

4 Bone scan

- 4.1 Bone scintigraphy has high sensitivity (93.3%) for detecting osseous metastases.
- 4.2 Routine bone scintigraphy is not warranted, and is only reserved for symptomatic patients or those with biochemical abnormalities.
- 4.3 If whole body FDG PET has already been performed, additional bone scintigraphy is not necessary in most circumstances.

5 MRI

- 5.1 MRI is particularly useful in determining certain parameters of unresectability for superior sulcus cancer such as invasion into vertebral body, spinal canal, neural foramina, subclavian artery or brachial plexus.
- 5.2 MRI is useful in assessing chest wall and mediastinal invasion.
- 5.3 Using Cine MRI during free breathing, presence of sliding between the tumor and mediastinum or chest wall has been shown to be diagnostic of lack of invasion; the converse however may not necessarily indicate invasion since adhesion from local inflammatory changes may also restrict tumour motion.

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