overall. However, this latter value heavily depends on the indications for mediastinoscopy.[7] For example, in patients with clinical stage I disease, the incidence of nodal involvement detected by mediastinoscopy is only 3% and that detected by thoracotomy is only 5.6%.[2]

Newer staging modalities such as EBUS and EUS are dependent on ultrasound localization of lymph nodes. In EBUS-guided transbronchial needle aspiration, nodal biopsies are usually not attempted if the nodes cannot be visualized using ultrasonography, so these stations are often considered clinically negative. Nodes not visualized on ultrasonography are highly likely to be benign, and EBUS has a very low false negative rate for detecting nonbiopsied "normal" nodes.[8] In contrast, EUS has a false negative rate of 13% when the nodes are radiographically normal; however, this rate is higher—about 23%—in patients with other mediastinal nodal involvement. This indicates that mediastinoscopy or VATS should be used to complete mediastinal staging believed to be incomplete using EBUS alone or EBUS combined with EUS. (Please see Chapter 6 on the controversies of EBUS/EUS.) Comparative studies have demonstrated that mediastinoscopy offers a greater number of nodes sampled, a greater number of stations sampled, and more conclusive findings than EBUS or EUS.[9–11] Documentation of ipsilateral N2 disease alone is often insufficient to inform treatment recommendations; the status of the contralateral nodes must also be documented to enable surgeons to make specific recommendations regarding possible resection after induction therapy.

4. MEDIASTINAL STAGING AT THE TIME OF LUNG RESECTION

Recommendation: At the time of lung resection, on the right side, sampled/dissected nodes should include R10, R9, R8, 7, R4, and R2 nodes. On the left side, sampled/dissected nodes should include L10, L9, L8, 7, 6, 5, and L4 nodes and L2 nodes if accessible.

Type of Data: Retrospective.

Strength of Recommendation: Weak.

Rationale

The hilum and mediastinum should be thoroughly staged at the time of lung resection, even in patients who are undergoing nonanatomic parenchyma-sparing resections such as segmentectomy or wedge resection. There is no conclusive evidence that nodal dissection provides more complete staging information or results in better outcomes than nodal sampling does. On the right side, the sampled or dissected nodes should include the R9, R8, 7, R10, R4, and R2 nodes. On the left side, the sampled or dissected nodes should include the L9, L8, 7, 6, 5, and L4 nodes and the L2 nodes if accessible. Preservation of the recurrent laryngeal nerve takes precedence over complete nodal dissection in station 5.