INTERVIEW

Harvey I Pass, MD

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Tracks 1-12

Track 1 **Case discussion:** A 72-year-old man and prior smoker who underwent partial laryngectomy for ENT cancer three years ago is diagnosed with Stage IIIA squamous cell NSCLC and receives concurrent cisplatin/etoposide and radiation therapy

Track 2 Endobronchial ultrasound biopsy for staging mediastinal lymph nodes

Track 3 Objectives of induction chemo-radiation therapy for patients with operable Stage III NSCLC

Track 4 Interaction between induction chemotherapy with or without radiation therapy and operative procedure on surgical morbidity

Track 5 Effectiveness of chemotherapy and definitive radiation therapy versus chemoradiation therapy and surgery in NSCLC

Track 6 **Case discussion:** A 58-year-old woman and former smoker with adenocarcinoma of the left upper lung and positive N2 disease in the aortopulmonary window receives concurrent chemoradiation therapy

Track 7 Obtaining adequate tissue from needle aspirates for biomarker assessment

Track 8 **Case discussion:** A 65-year-old man with a smoking history diagnosed with EGFR-mutant, metastatic NSCLC experiences disease progression while receiving carboplatin/pemetrexed and has a complete response with erlotinib

Track 9 Toxicity of chemotherapy with definitive radiation therapy prior to surgical resection

Track 10 Clinical investigations of stereotactic body radiation therapy (SBRT) versus segmentectomy for the local treatment of NSCLC

Track 11 Use of SBRT for elderly patients with NSCLC

Track 12 New developments in the treatment of mesothelioma

Select Excerpts from the Interview

Tracks 2-3

DR LOVE: For a patient with suspicious mediastinal lymph nodes, do you typically biopsy the primary tumor first, or do you immediately evaluate the lymph nodes?

DR PASS: For a patient with suspicious mediastinal lymph nodes, we go directly to the nodes, and we do so with endobronchial ultrasound (EBUS) rather than mediastinoscopy.

EBUS is necessary in cases of large, PET-positive lymph nodes. The learning curve for this approach requires about 50 cases, but as you gain experience the technique also improves.

DR LOVE: How would you compare the morbidity of EBUS to mediastinoscopy?

DR PASS: The morbidity with EBUS is certainly lower than it is with mediastinoscopy. Surprisingly, ascending mediastinitis has been reported with EBUS a couple of times. This occurs when the lymph node was biopsied and the mediastinum subsequently became infected. However, compared to the concerns regarding bleeding and recurrent laryngeal nerve injuries with mediastinoscopy, the morbidity is much lower.

It is definitely a user-directed procedure. Certain people have used EBUS considerably and are absolute experts, and that is the trend. Eventually, this initial evaluation will be conducted by people who've performed it so many times that the sensitivity will be extremely high.

DR LOVE: How long does the procedure typically take?

DR PASS: It can take 40 minutes to an hour and a half with multiple lymph nodes because you're aspirating the nodes. You're performing at least three aspirations — finding the lymph nodes, preparing the slides and reading the slides. It can take as long as a mediastinoscopy, if not longer.

DR LOVE: After performing EBUS on a patient, how do you assess the next steps?

DR PASS: At our institution, if we identify a positive lymph node, we prefer to administer induction therapy first and then operate. We have different protocols, but most of the time patients receive as induction cisplatin/etoposide with radiation therapy.

DR LOVE: What's the objective of induction therapy? Can it change the procedure?

DR PASS: In a randomized trial for patients with Stage IIIA disease, no significant difference was observed in the number of pneumonectomies between the induction arm and the surgery arm (Nagai 2003).

I believe one of the more important prognostic signs in all the studies is that if you're able to obtain a robust response to induction therapy in the mediastinum, then those patients seem to benefit from a doubled survival rate in the surgical series. The goal of induction therapy is a response that is histologically proven to be a near-complete response in the mediastinum.

Track 4

DR LOVE: What are your thoughts on the effects of induction therapy on surgical morbidity?

DR PASS: It depends on the type of surgical procedure, which is controversial. In the literature, postinduction right pneumonectomies particularly have been associated with an increased chance of postoperative death (Martin 2001; [2.1]). Some recent papers have stated that we can perform pneumonectomies, but we need to define whether that decision should be revisited for patients who have undergone induction therapy. A poll of the NCCN centers posed the question, would you perform a pneumonectomy for a patient for whom you could perform an R0 resection after induction therapy? Fifty-five percent of the centers replied that they would. So oncologists disagree about what to do for a patient who may undergo a pneumonectomy after induction therapy.

2.1

Morbidity and Mortality with Right Pneumonectomy After Induction Therapy for Lung Cancer

Surgical intervention	Total mortality, n (%)
Pneumonectomy (n = 97)	11 (11.3%)
Right pneumonectomy (n = 46)	11 (23.9%)
Lobectomy (n = 297)	7 (2.4%)

Martin J et al. *Ann Thorac Surg* 2001;72(4):1149-54.

Track 8

DR LOVE: Have you used an EGFR TKI, such as erlotinib, as part of induction therapy for any patients with EGFR mutations?

DR PASS: I recently had a patient whose initial presentation was not for induction. Rather, he presented with a large left upper lobe lesion with no mediastinal disease, and we thought he had an isolated site of metastasis to the rib. The disease progressed right through treatment with pemetrexed and carboplatin. We had the rib lesion biopsied because a large soft tissue component was present around it, and excellent core biopsies were obtained. We sent the samples out for mutational analysis, and the results came back as EGFR mutation-positive. After switching to erlotinib, the patient experienced a complete response and has been receiving it continuously for six months. ■

SELECT PUBLICATIONS

Martin J et al. **Morbidity and mortality after neoadjuvant therapy for lung cancer: The risks of right pneumonectomy.** *Ann Thorac Surg* 2001;72(4):1149-54.

Nagai K et al. **A randomized trial comparing induction chemotherapy followed by surgery with surgery alone for patients with stage IIIA N2 non-small cell lung cancer (JCOG 9209).** *J Thorac Cardiovasc Surg* 2003;125(2):254-60.