Challenges of Treating Elderly/Frail Patients with Lung Cancer, Part 1:
Considerations for Adjuvant Therapy

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Declared Conflicts of Interest

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Research Funding – Eli Lilly

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Consultant – Eli Lilly, Bristol-Myers Squibb, Genentech

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Consultant – Eli Lilly, Bristol-Myers Squibb
This program is made possible through an educational grant from OSI Pharmaceuticals, who had no input in the development of its content.

We deeply appreciate their support.

Case 1: Resected stage II NSCLC

• 77 year-old woman referred for consideration of adjuvant therapy after resection of T2N1Mx NSCLC
• Never-smoker, history of hypothyroidism, PAF: right chest discomfort, presented to outside ER: CT angiogram to r/o pulmonary embolus
• 1.6 cm pleural-based lesion in superior segment right lower lobe (RLL).
• Referred to pulmonologist, did not see for a few months. Repeat CT shows nodule now 2.0 cm
• PET/CT: hypermetabolism max SUV 7.6, no other areas of uptake
• Pulm function tests: FEV1 2.0 L, DLCO 88% predicted
CT of Lesion

Case 1: Referred to Thoracic Surgery

- Underwent wedge resection for diagnosis, followed by completion lobectomy
  - Should she have had biopsy first, or is this high enough probability/wedge too straightforward?
  - Did she need completion lobectomy (data suggest older patients have equivalent survival for wedge vs. lobectomy)?
- Pathology
  - 1.8 cm adenocarcinoma, mixed acinar/BAC types
  - Moderately differentiated overall
  - Rare focus of tumor involving visceral pleura (T2)
  - One of 10 nodes with metastatic adenocarcinoma (0.4 cm)
Limited Resection vs. Lobectomy, by Age

- **Age < 65**
- **Age 65-74**
- **Age 75 and older**

Mery, *CHEST* 2005

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• Microscopically node-positive disease

Would you recommend adjuvant therapy?

- Standard chemotherapy?
- Consideration of EGFR-based therapy?

Meta-Analyses Demonstrate Survival Benefit of Adjuvant Chemotherapy

LACE Meta-Analysis

Pignon, J Clin Oncol 2008

NSCLC Meta-Analysis Collaborative Group

NSCLC Meta-Analyses Collaborative Group, Lancet 2010
**JBR.10 - Study Design**

Stage IB or II NSCLC
N = 482 patients

**R**

Cisplatin days 1, 8 every 28 days x 4 cycles
Navelbine (vinorelbine) weekly x 16 weeks

**A**

No chemotherapy


**JBR.10 Trial of Adjuvant Chemotherapy: Survival and Lung Cancer-Specific Survival by Age**

Overall Survival

Lung Cancer-Specific Survival

JBR.10: Differences in Drug Delivery for Adjuvant Chemotherapy, by Age

- Patients > 65 received significantly less chemo
  - Navelbine (vinorelbine)
    - 71% of older patients receive <10 doses (vs. 50% for younger)
  - Cisplatin
    - 49% of older patients receive <5 doses (vs. 27% of younger)
- No significant differences in toxicity, or need for growth factor support
- More elderly patients refused treatment


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How do you decide on the chemotherapy to recommend for a patient with marginal kidney function?
How do you prioritize platinum-based treatments for patients with good organ function and performance status but who are very concerned about chemo-related side effects after surgery?

What is your approach to adjuvant chemotherapy for frail patients, regardless of age?
Would you be inclined to send off tissue for molecular testing for EGFR and potentially use that information to recommend EGFR-based treatment?

Randomized Double-Blind Trial In Adjuvant NSCLC with Erlotinib (RADIANT)

Principal Investigator – Dr. Karen Kelly

N = 945 patients
- St IB – IIIA NSCLC
- EGFR positive (IHC and/or FISH)
- No chemo or up to 4 cycles of standard adjuvant chemo

2yrs or until one of the following:
- Relapse
- Death
- Pt request
- Investigator decision
- Intolerable toxicity

Follow up Q 6 months x 5 years, then yearly
Would you send for ERCC-1 or any other “chemotherapy sensitivity testing” to help with making recommendations?

- In a very equivocal case for chemotherapy?
- In many/most patients who would be candidates for adjuvant therapy?
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