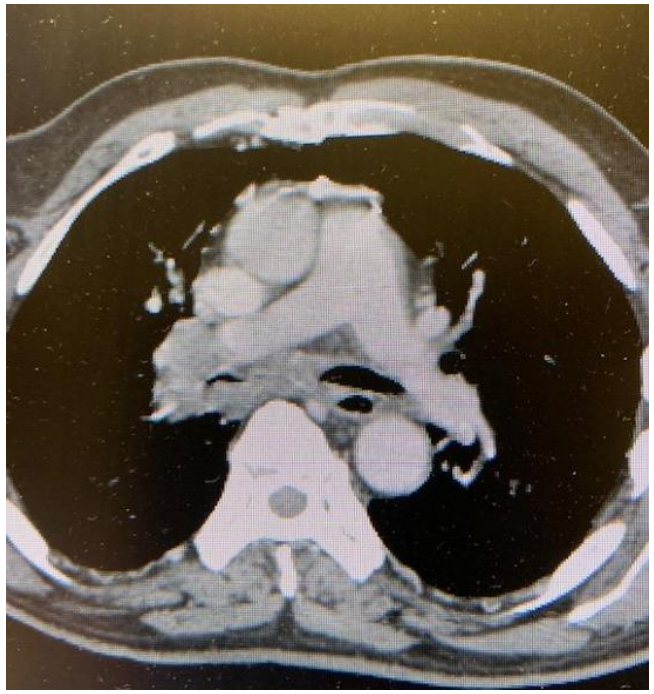
Echo Series 2021: Phoebe Putney Memorial

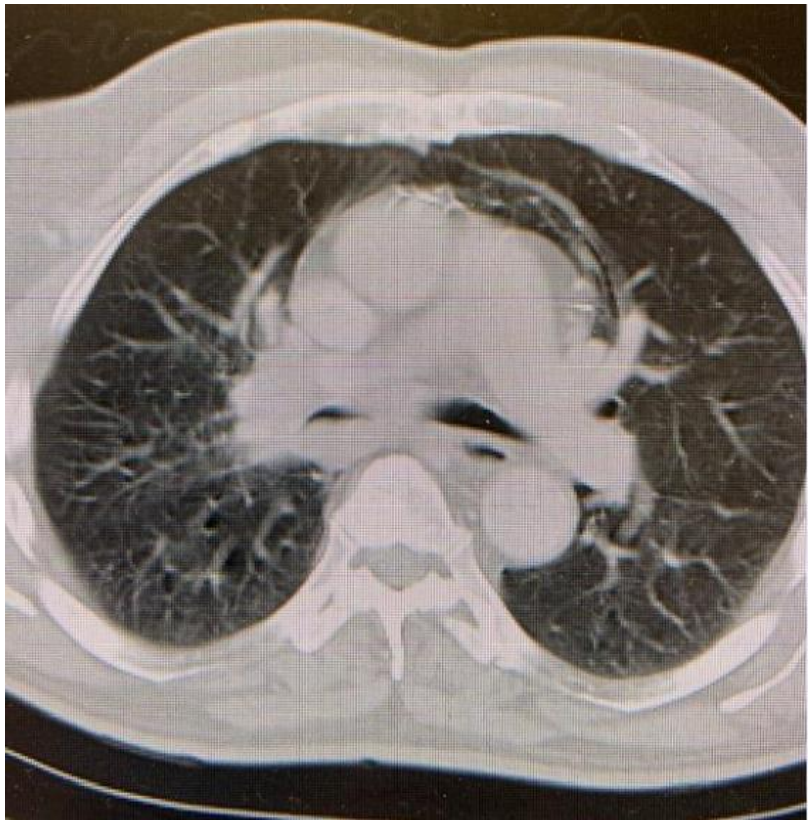
Case Presentation

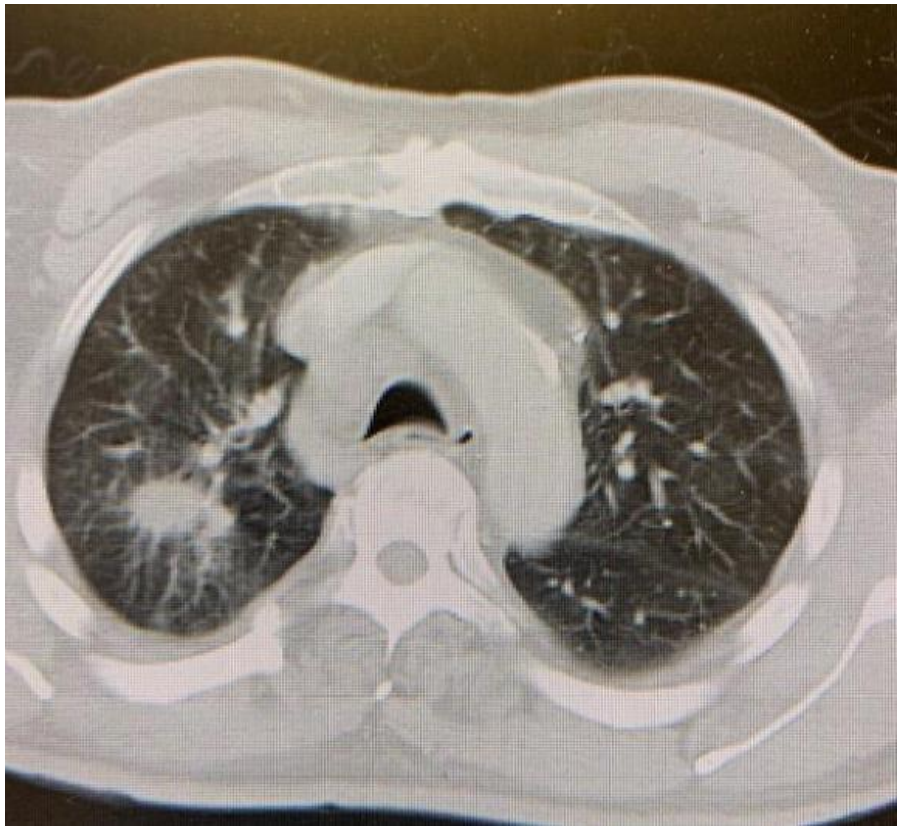
D. Adam Jones, Radiation Oncology

70 yo male, non-smoker

- Cough with productive sputum
- Scant hemoptysis
- After failed conservative medical therapy underwent CT imaging

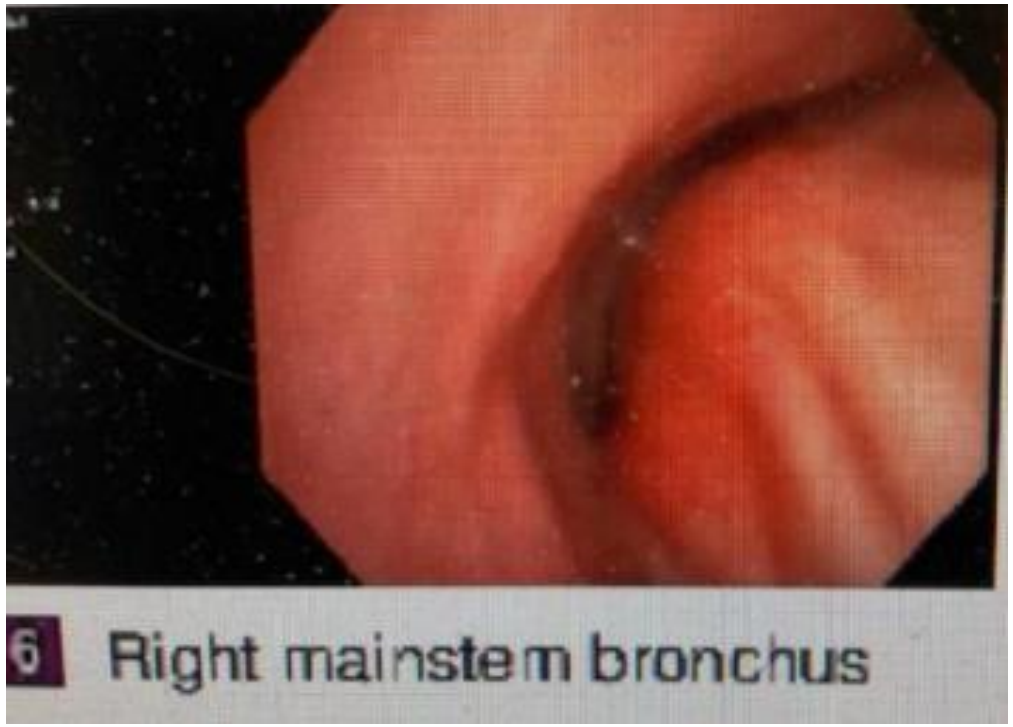




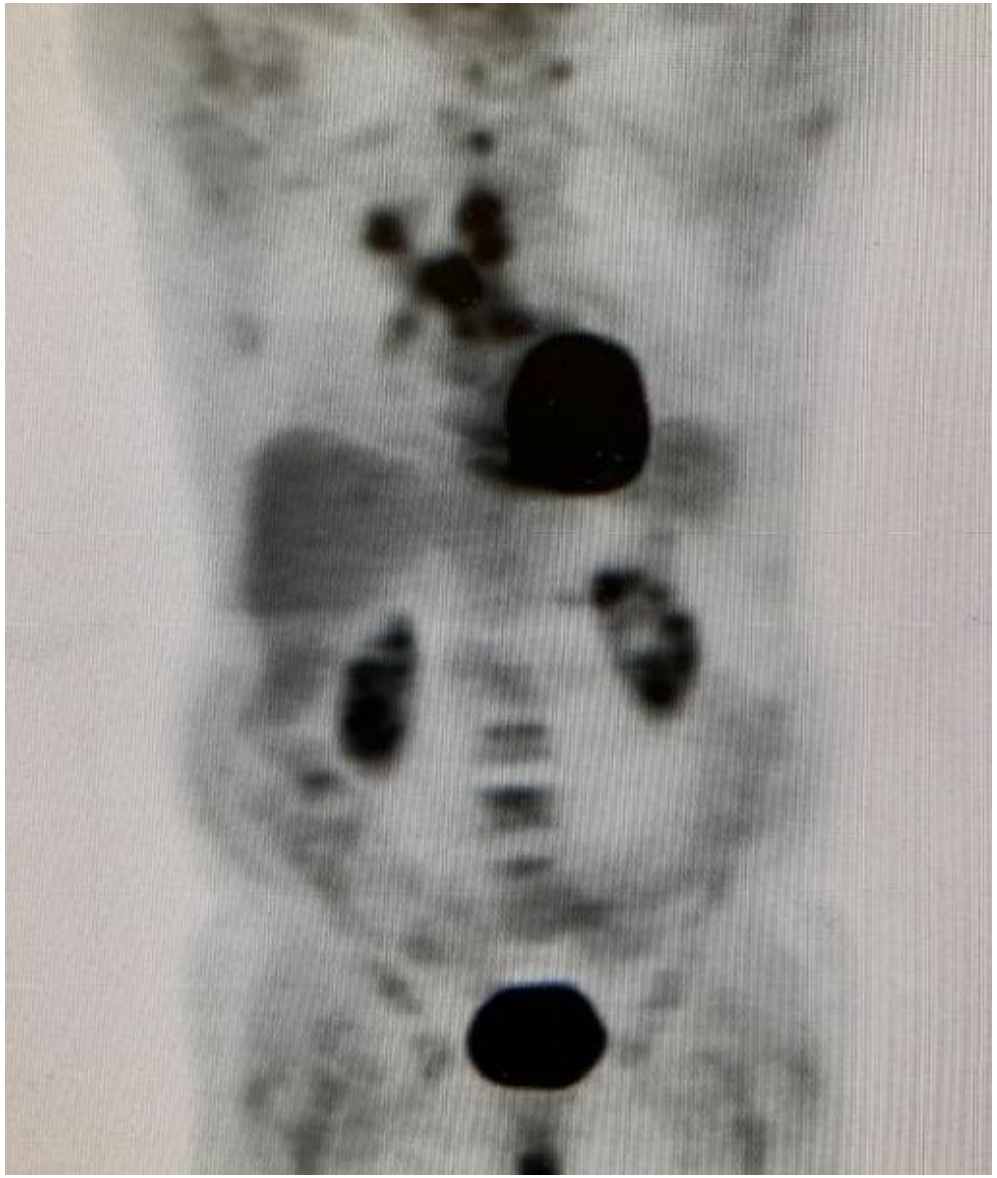


Bronchoscopy and EBUS

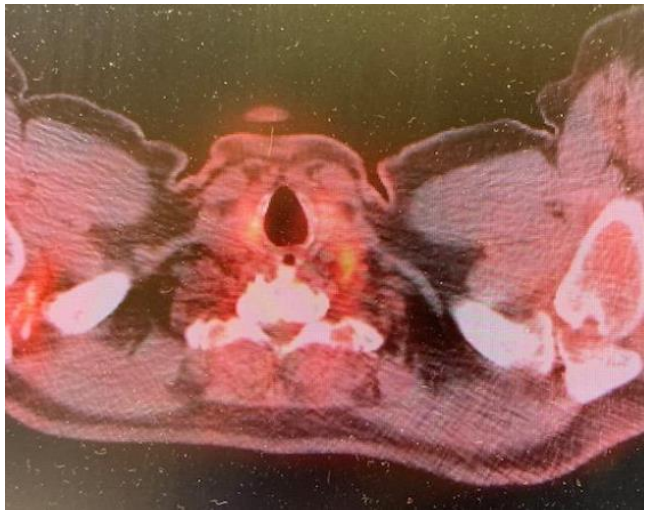
- Multiple cores submitted (4R,7)
- Primary lesion not able to be assessed
- Patient became hypoxic
- Admitted for observation
- Radiation Oncology consulted
  - Airway compression
  - Single fraction radiotherapy delivered (5Gy, limited field R airway)

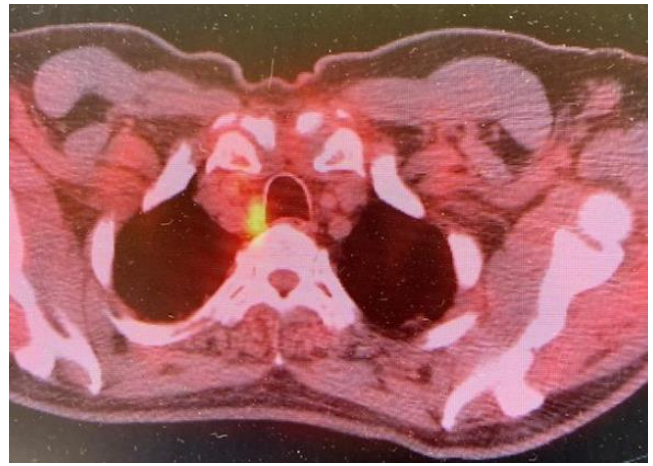


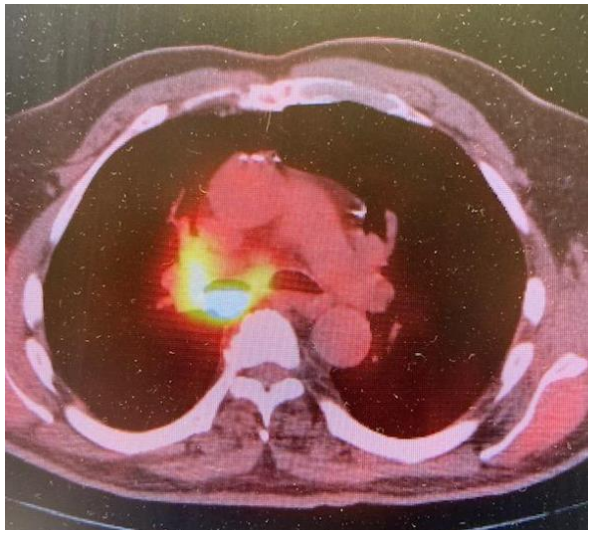
PET completed

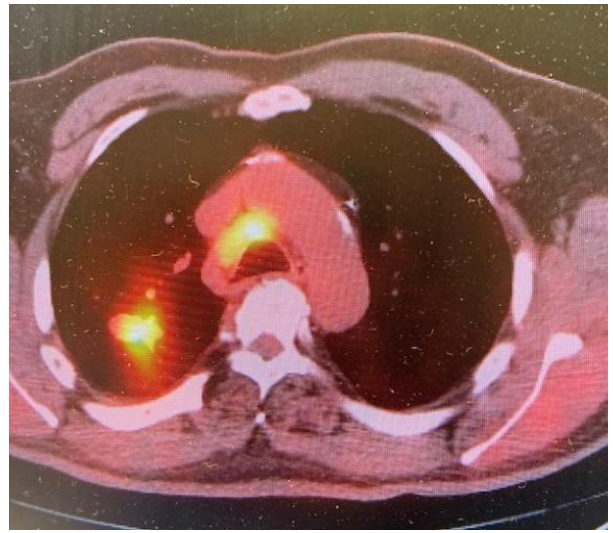


Selected fused axials









Pathology consistent with “non small lung cancer” NOS

- *Not enough tissue available to send out for biomarkers*

In summary, stage IIIB NSCL CA; significant airway compression

- CT day 6/21
- Pulmonary consult 6/24
- Bronch/EBUS day 7/1
- RT delivered day 7/2
- Path reported day 7/6
- PET completed day 7/8

Clinical Question

Do you begin (standard therapy)… Or do you repeat biopsy and delay treatment potentially another 3-4 weeks in an effort to obtain adequate tissue for biomarker testing?

Faculty Recommendations/Discussion

Clarifying Questions

Questions regarding the lymph nodes, staging, and pathology were asked by Dr. Rodolfo Bordoni (Northside Cancer Institute)

Answers from Dr. Adam Jones:

- ✓ Lymph nodes and Staging: Nearly impossible to biopsy. Visible. 3B or 3C. It's more than 3A.
- ✓ Pathology: Do not have the actual report. At Phoebe, we talk with our pathology team from the onset until our issue has been resolved. Not enough morphological detail to distinguish adenocarcinoma versus squamous. Much consideration if it was a metastatic site (it was not).

Recommendations/Discussions

Dr. Adam Jones asked Dr. Suresh Ramalingam regarding his recommendation, e.g., would he recommend repeating the repeating thebiopsy in order to conduct biomarker testing for this patient or a patient like this, who is functional, who does not by definition have metastatic disease?

From Dr. Suresh Ramalingam

- ✓ Molecular testing is in order; obviously, the radiographic image of the right mainstem bronchus nearly collapsing is a big concern and a sense of urgency. Recommendation may be to send out a blood sample as step one, look for any driver mutations and have him scheduled for a biopsy immediately. If he can get his biopsy scheduled the next day, then proceed. If you are in a situation in which the pulmonologist cannot obtain tissue again soon and or it will take time to schedule and or the patient ends up becoming ill, it may not be safe to wait for the molecular testing results. But at least obtain the blood.
- ✓ Smoking Status: Often this does come up. It is true that patients without tobacco history are more likely to have certain mutations like EGFR or ALK. We do NOT recommend using smoking status to determine who should receive biomarker testing and who should not. There are enough targets in patients who use tobacco or who have had tobacco history. For example, KRAS is very common in patients with a tobacco history. If we chose not to test patients with tobacco history, we are missing the best treatment options for them.
- ✓ Tumor Board Involvement: This represents a case that would be hotly debated in a tumor board. Approaches would vary; some may recommend giving this patient chemotherapy and radiation while others would recommend treating with a local approach or some would consider a systemic therapy option. Based on what I know about this patient, I may recommend using radiation at the front end of this patient's treatment regimen.

Faculty Recommendations/Discussion (Continued)

Recommendations/Discussions

. *Dr. Adam Jones: Additional Pointsa*

- ✓ Beneficial for the Tumor Board and this patient will be having a separate consultation at Emory
- ✓ Will be another attempt at tissue sampling
- ✓ Single Fraction: Does not burn a bridge; gather all the information and allows us to move forward in any direction.

Dr. Ramalingam to Dr. Jones

Question: You often see these patients while they are in the hospital; how often do you need to have the conversation with them regarding molecular testing?

Answer from Dr. Jones: As a radiation oncologist, I think we owe it to the patient to be informed. Original conversation with this patient: This is a very assertive patient with a well-read family. We will get into this in future ECHOs, but there are some rules regarding insurance payment and molecular testing, contingent on if a patient is in the hospital or out-patient. For in-patients, there is the CMS "14-Day Rule." This patient's testing happened during a holiday week, which also added further complications. Generally, I mention molecular testing as anoption for almost all patients, unless they are inoperable or in early stage and or we may need to discuss with them during the recurrence stage, if that happens to the patient.

Faculty Recommendations/Discussion (Continued)

Recommendations/Discussions

Question: *Dr. Troy Kimsey (Phoebe Putney Health System),* With the EBUS approach and needle aspirations, are you getting enough tissue for the molecular testing?

Answer from Dr. Flenaugh: There are a lot of studies that show that you can absolutely receive adequate tissue; it helps to have someone reviewing onsite to tell you what the specimen adequacy is. The recommendation is for 3 passes into each lymph node; 15 to 20 needle swipes, etc. Having onsite does help; Size of the needle does not necessarily matter; depends on the cytopathologist sometimes. There are some core needles that can be used. Regarding patients who may be taking Plavix, we have done a small study (approximately n=32), no major outcomes. Not preferred; but can be done.

Question: *Dr. Adam Jones*, Is there a difference in the yield of specimen when performing a biopsy on the primary tumor versus the lymph node?

Answer from Dr. Flenaugh: Depends on the pathology. With the Lymph node: spread into lymphocytes, looking for tumor there versus the primary lesion which is all tumor. Rapid onsite evaluation can be challenging for small cell, as may be hard to distinguish between small cell or lymphocytes. Mostly contingent on the pathology having enough specimen. More to discuss in future sessions regarding current work/studies that are using rapid-onsite evaluation through AI.