

Current Concepts & Controversies in Locally Advanced NSCLC, Case 2: Ambiguous Imaging Findings after Chemo/Radiation



Dr. George Blumenschein
Medical Oncologist
Associate Professor,
Thoracic & Head/Neck Oncology
MD Anderson Cancer Center
Houston, TX



Dr. Walter Curran
Radiation Oncologist
Executive Director
Winship Cancer Center
Emory University
Atlanta, GA



with Howard (Jack) West, MD
Medical Oncologist
President & CEO
GRACE

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.

Conflicts of Interest

Dr. George Blumenschein

No significant conflicts of interest to declare.

Dr. Walter J. Curran

No significant conflicts of interest to declare.

Young woman with Stage IIIB NSCLC

- 39 year old woman referred with a Pancoast tumor, overall staging consistent with stage IIIB NSCLC
- Teacher, smoked 2 ppd x 25 years
- Known emphysema/COPD
- Lost 25 pounds over 3 months: decreasing appetite and increasing fatigue, non-exertional chest pain in upper right chest anteriorly
 - Also minimal dry cough, without hemoptysis

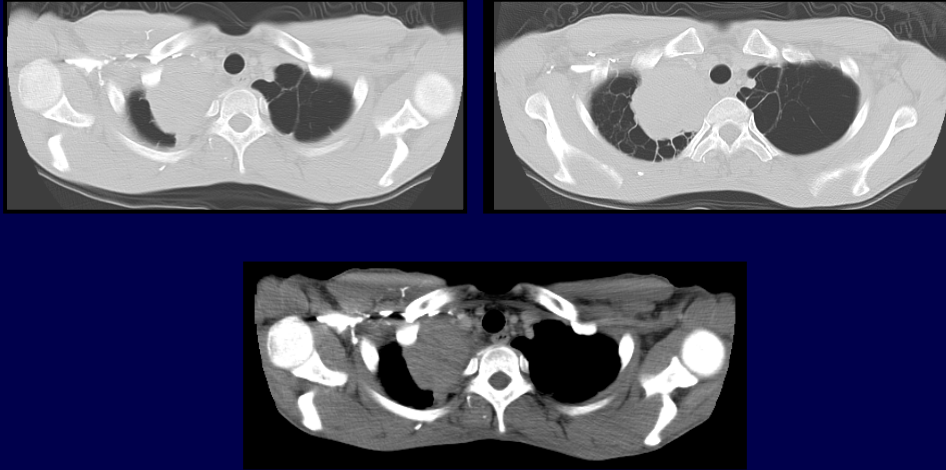
Ongoing work-up, diagnosis

- Sees her local physician, who performs CXR: large RUL pulmonary mass
- CT chest: 8.3 x 6 cm right apex medially
 - Adjacent bullous emphysematous changes L>R (impressive)
- Referred to pulmonologist → bronchoscopy, non-diagnostic
- CT-guided biopsy: squamous cell NSCLC, pos for CK7, neg CK20, TTF-1 neg, P63 pos

Ongoing work-up, diagnosis

- PET/CT shows max SUV 9.5 in primary right apical mass, abutting pleural surface and first rib, no increased activity in rib or chest wall
- Mildly increased SUV in precarinal nodes, mSUV 2.4, increased in right suprahilar region with mSUV 3.0; small nodes adjacent to left mainstem have SUV 3.2, suspicious for involvement.
- PFTs: FEV1 1.83 liters (51% of pred); DLCO 47% pred

Initial Imaging



Is mediastinal involvement in someone with a Pancoast tumor a reason not to pursue surgery?

Treating for Stage IIIB NSCLC

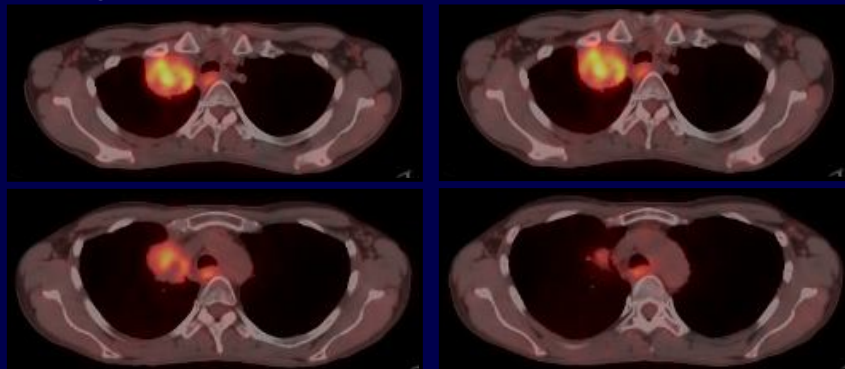
- She receives cisplatin/etoposide (3 cycles, actually) with concurrent RT to 66 Gy, including mediastinum
- Tolerates it well, some mild nausea, fatigue, but eating, maintaining/increasing weight

When and how do you assess response after chemo/radiation?

What do you consider to be the role of PET/CT scanning vs. CT alone?

PET/CT Imaging after Chemo/Radiation

- Completes definitive chemo/radiation, and she undergoes repeat PET/CT ~2.5 weeks later

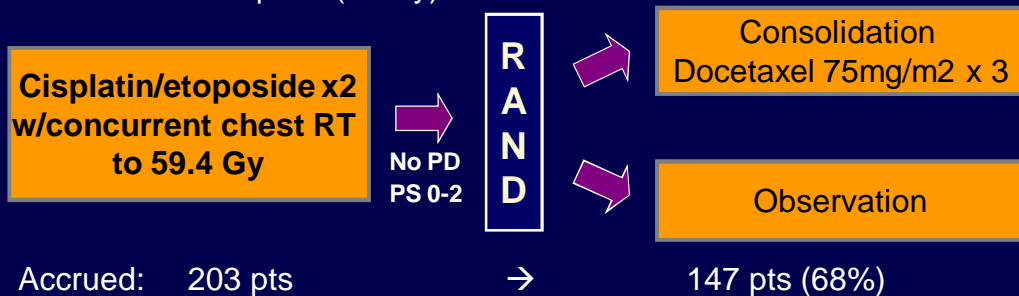


- Tumor smaller, slightly less metabolic uptake
- Mediastinum now “background”, mSUV 2.4, neg on left

Is there any further intervention that you would recommend at this point, either systemic or local therapy?

HOG LUN01-24 Trial: Direct Test of Consolidation Docetaxel

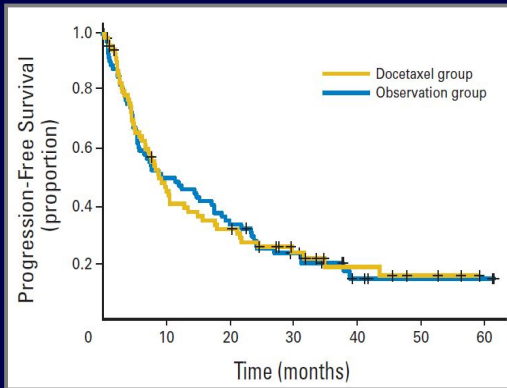
- Unresectable stage III NSCLC; FEV1 \geq 1.0L
- Primary Endpoint: Improvement in median survival, 15 \rightarrow 25 months
- Trial stopped early due to DSMB recommendation at planned interim time point (futility)



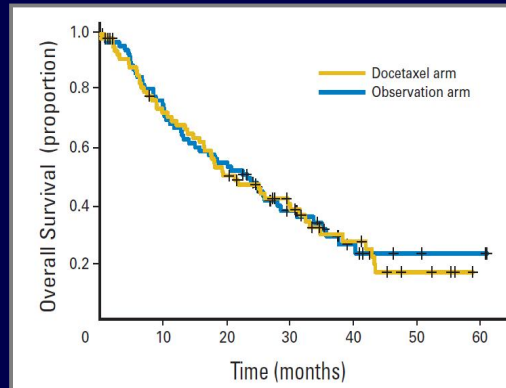
Hanna, *J Clin Oncol* 2008

HOG LUN01-24 Trial: Direct Test of Consolidation Docetaxel

Progression-Free Survival



Overall Survival



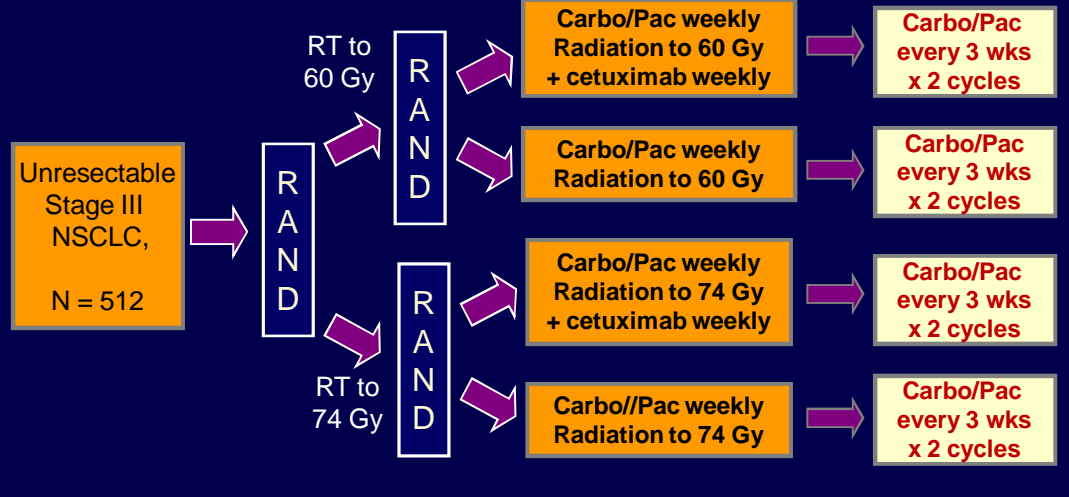
Hanna, *J Clin Oncol* 2008

RTOG/Intergroup Trial of Chemo/Radiation to Either 60 or 74 Gray, +/- Erbitux Cetuximab

Primary Endpoint: Overall Survival

Concurrent
Chemo/Radiation

Consolidation



So would you say:

Cisplatin/etoposide
(full dose) with RT

= good systemic activity

Carbo/Pac weekly
with RT

= minimal or no systemic activity

?

Further therapy for potential residual
localized disease after full dose
chemo/radiation?

Proceeds to Mediastinoscopy and Right Upper Lobectomy

- She has negative mediastinoscopy
- Proceeds to right upper lobectomy
- Pathology shows extensive necrosis, no viable tumor (primary mass or nodes)

Scans with residual findings but
pathology completely negative.

What does this tell us about
interpreting outcomes by scans after
chemo/radiation?

We depend on your support to continue GRACE educational programs like these.

PLEASE contribute at
<http://cancergrace.org/donate/>

