

Current Concepts & Controversies in Locally Advanced NSCLC, Case 1:

Multidisciplinary Management of Stage IIIA N2 Disease



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

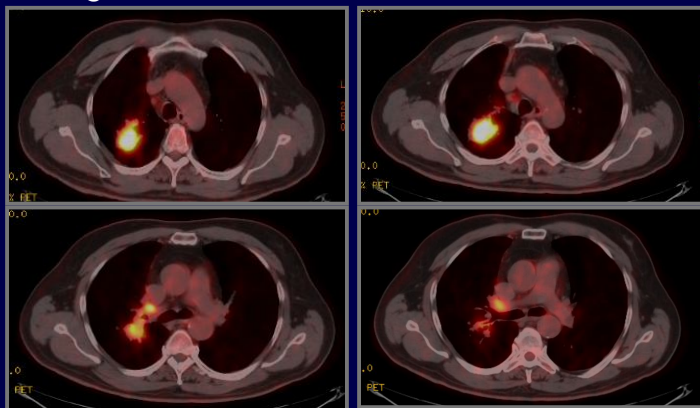
No significant conflicts of interest to declare.

Stage IIIA N2 NSCLC, Background

- 54 year-old male aerospace mechanic with excellent performance status just diagnosed with stage IIIA, N2 NSCLC
- Previously smoked 1 ppd x 10 years, quit 25 yrs ago
- Noted dry cough x 1 month, mentioned to primary MD
- CXR: right upper lobe mass, confirmed on chest CT, also modest right hilar +/- mediastinal adenopathy
- Referred to pulmonologist: bronch/EBUS:
 - 4R node shows adenocarcinoma, TTF-1 positive

PET/CT and Pulmonary Function Tests

- PET/CT: 4.4 x 4.1 cm RUL mass, mSUV 12.6, abnormal uptake in right hilum as well, 4R 1 cm, SUV 3.5

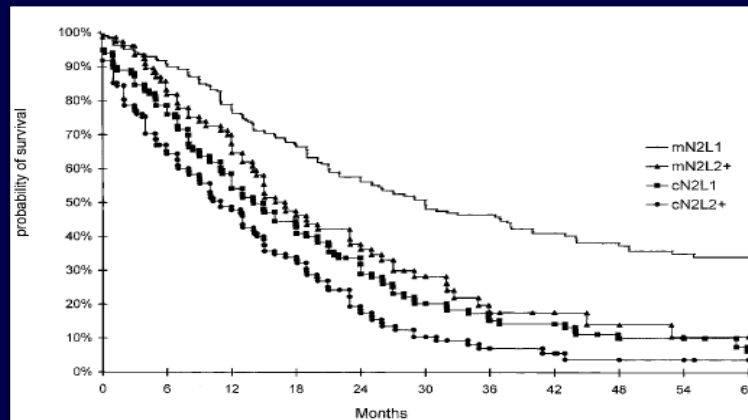


- Pulmonary function tests: FEV1 2.9 L, DLCO 85% predicted

Would you pursue an upfront mediastinoscopy to more definitively determine stage, or would you defer it until after induction therapy?

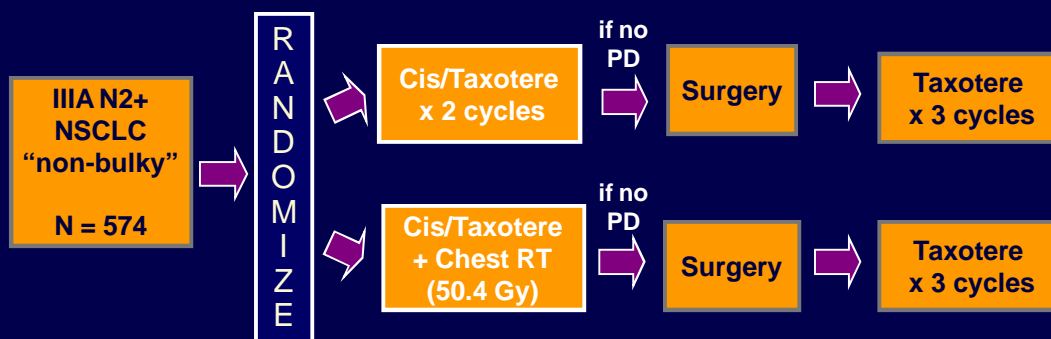
Heterogeneity within the Stage IIIA N2 LN-Positive Population

N= 702



Andre, JCO 18: 2981-9, 2000

Induction Chemo +/- RT for Resectable Stage IIIA N2 NSCLC: Schema



Stratification:

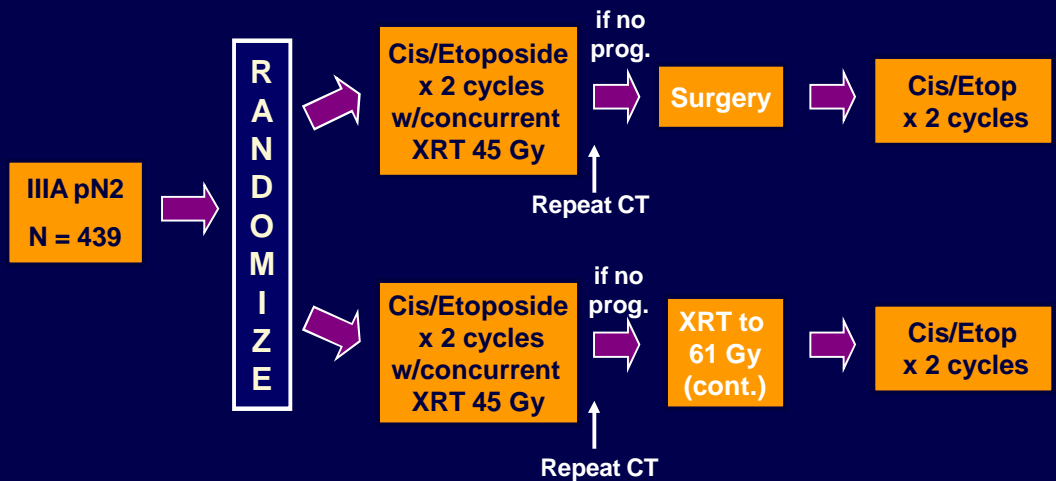
- #LNs (1 vs >1)
- Gender
- Clin/Micro N2
- T stage (T1 vs 2/3)

PD = progressive disease

How do you decide who is an which patients with stage IIIA N2 NSCLC are appropriate candidates for a surgical vs. non-surgical approach?

Do you/physicians at MD Anderson pursue induction chemotherapy or chemo/radiation before surgery?
What chemotherapy regimen(s) do you recommend?

Intergroup 0139: Definitive CT/RT vs. Induction CT/RT → Surgery for Stage IIIA NSCLC



Albain, Lancet 2009

Stage IIIA N2 NSCLC: Pre-operative therapy

- He is felt to be a very good candidate for chemo/radiation prior to surgery.
- He receives cis/etoposide x 2 cycles, concurrent with thoracic radiation to 50.4 Gy, tolerating it with essentially no side effects.
- Unfortunately, his cancer shows only minimal radiographic response 3 weeks later.

No radiographic response after
induction chemo/radiation.

Would you still recommend surgery?

Would you use mediastinoscopy
results to shape recommendations?

SWOG 8805: Chemoradiation Followed by Surgery for Stage IIIA/IIIB NSCLC

Albain, JCO 1995;
13: 1880-1892

N=126, Path-staged
N2 or N3 IIIA/IIIB NSCLC



Cisplatin/Etoposidex2
w/concurrent chest RT 45 Gy



(if no progression on repeat CT)

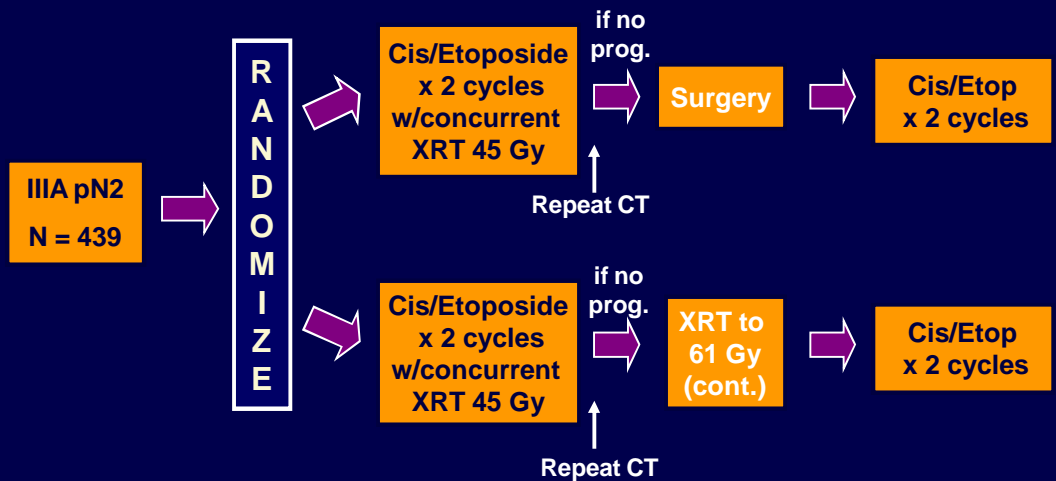
Surgery



(if incomplete resection or
N2 nodes positive at surgery)

Cis/Etop x2, RT to 60 Gy

Intergroup 0139: Definitive CT/RT vs. Induction CT/RT → Surgery for Stage IIIA NSCLC



Albain, Lancet 2009

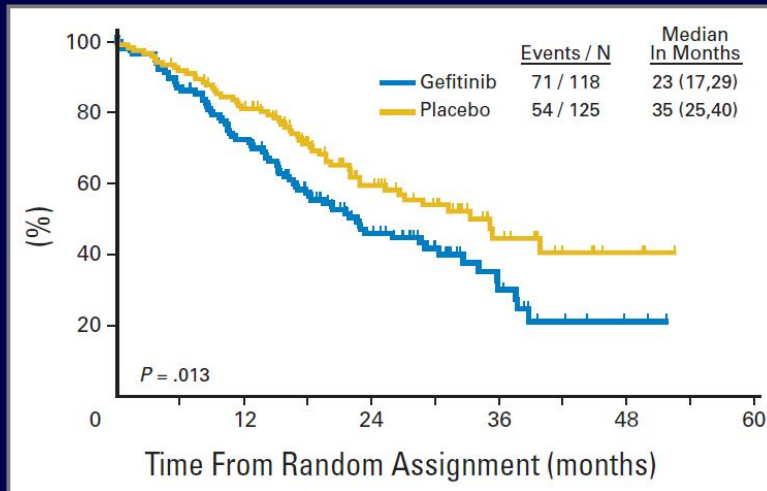
Post-Induction Surgery/Pathology Results

- Undergoes mediastinoscopy/dissection and right upper lobectomy (pneumonectomy felt unlikely to have been necessary)
- Residual viable tumor in primary mass, and in nodes in 2R and 4R (4L, station 7 negative)
- Recovers from surgery extremely well

What post-operative chemotherapy, if any, would you recommend after induction cisplatin/etoposide and concurrent chest irradiation?

Would you order molecular marker tests (EGFR mutations, ERCC1, etc.) on the tumor tissue and use these results to guide your systemic therapy recommendations?

SWOG 0023: Worse Survival after Chemo/RT with Maintenance EGFR Inhibitor



Kelly, *J Clin Oncol* 2008

Is there any value in additional post-operative radiation in a higher risk patient who previously received induction radiation to ~45 Gray?

RTOG 0229: Chemotherapy with Concurrent Definitive RT, followed by Planned Surgery

Primary Investigator:
M. Suranthalingam,
Univ. of Maryland

N = 60, Path-staged
N2 or N3 IIIA/IIIB NSCLC



Carboplatin/Paclitaxel weekly
w/concurrent chest RT 60 Gy



(if felt to be resectable)

Surgery



Carbo/Paclitaxel Q3wks x 2

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

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

