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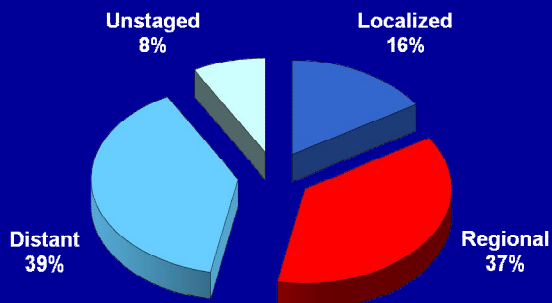
Current Standards of Care in stage III non-small cell lung cancer

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Most NSCLC Is Diagnosed at Advanced Stages

Extent of Disease at Diagnosis¹



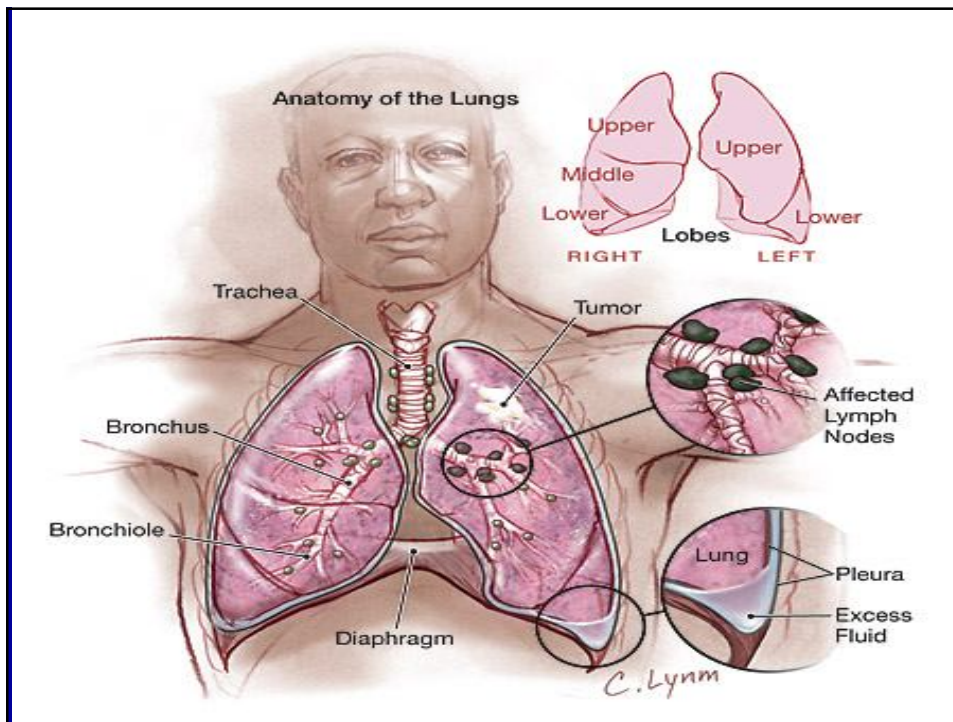
- 55% of patients present with stage IIIB or stage IV disease²
- ~5–6 months median survival for untreated stage IIIB/IV NSCLC^{3,4}
- ~15% 5-year survival rate with standard therapy⁵

1. Jemal et al. *CA Cancer J Clin.* 2006;56:106–130.
 2. Schrupp et al. In: *Cancer: Principles and Practice of Oncology*, 7th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2005.
 3. Spiro et al. *Thorax.* 2004;59:828–836.
 4. Albain et al. *J Clin Oncol.* 1991;9:1618–1626.
 5. American Cancer Society. *Cancer Facts & Figures 2006*. Available at: <http://www.cancer.org/downloads/STT/CAFF2006PWSecured.pdf>. Accessed August 28, 2006.

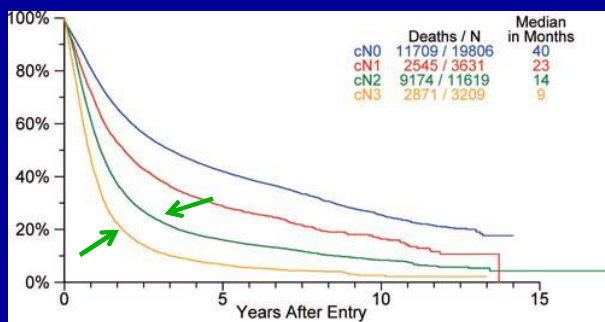
Heterogeneity of N2 disease

Node Station	Zone
Superior Mediastinal Nodes	
1 Highest Mediastinal	Upper zone (R)
2 Upper Paratracheal	
3 Pre-vascular and Retrotracheal	
4 Lower Paratracheal (including Azygos Nodes)	
Aortic Nodes	
5 Subaortic (A-P window)	AP zone (L)
6 Para-aortic (ascending aorta or phrenic)	
Inferior Mediastinal Nodes	
7 Subcarinal	Subcarinal zone
8 Parassophageal (below carina)	Lower zone
9 Pulmonary Ligament	
N₁ Nodes	
10 Hilar	Hilar zone
11 Interlobar	
12 Lobar	Peripheral zone
13 Segmental	
14 Subsegmental	

} Favorable



Heterogeneity of Locally Advanced NSCLC

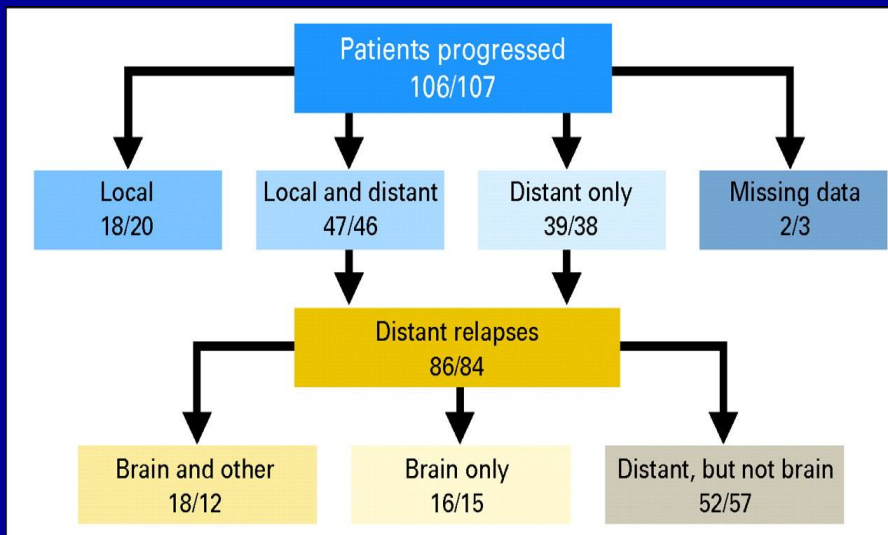


	1 Yr	5 Yrs		HR	P
cN0	77%	42%			
cN1	67%	29%	vs cN0:	1.44	<.0001
cN2	55%	16%	vs cN1:	1.49	<.0001
cN3	40%	7%	vs cN2:	1.54	<.0001

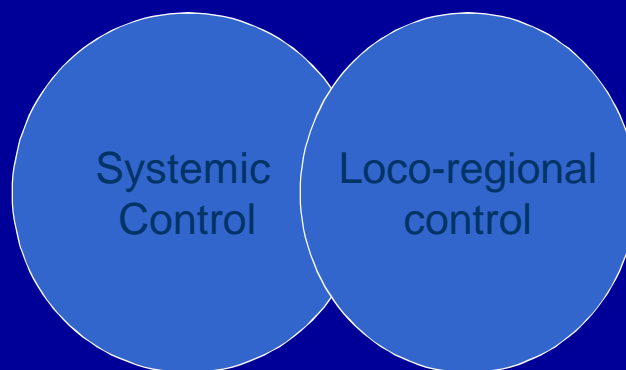


Rusch et al. J Thorac Oncol. 2007;2: 603-612

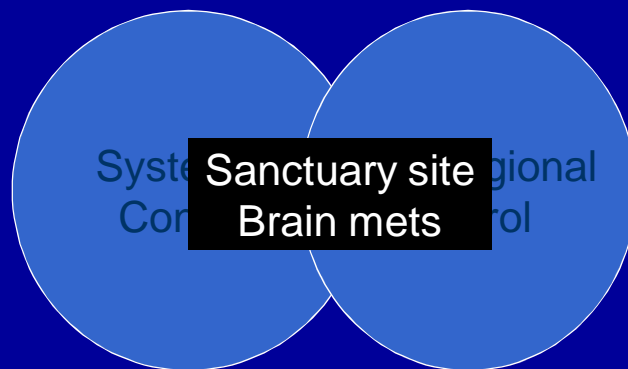
CALGB 39801: 82.7% of relapses are distant



Unresectable Stage III NSCLC The Challenges



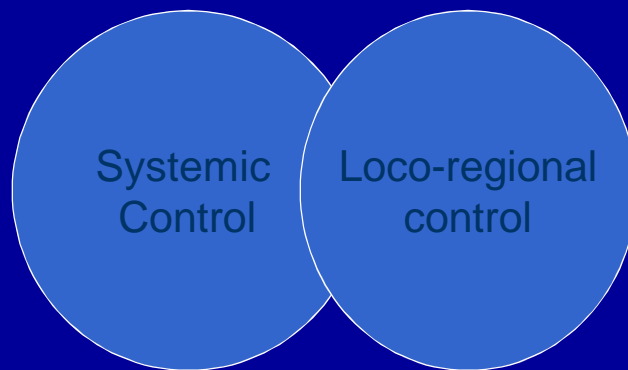
Unresectable Stage III NSCLC The Challenges



Tumor Board



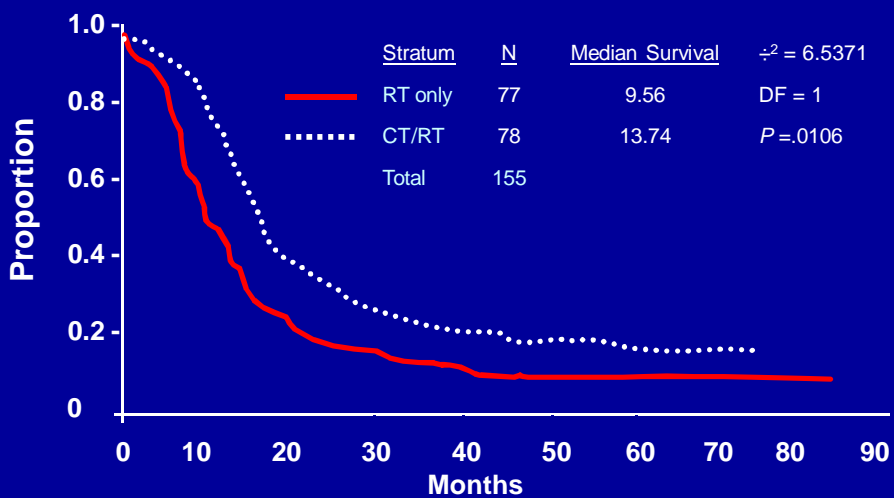
Targeting Visible and Micrometastatic Disease in Stage III NSCLC



←-----→
 Chemotherapy targets micrometastatic disease
 (and increases effectiveness/toxicity of radiation)

←-----→
 Radiation targets visible, localized disease

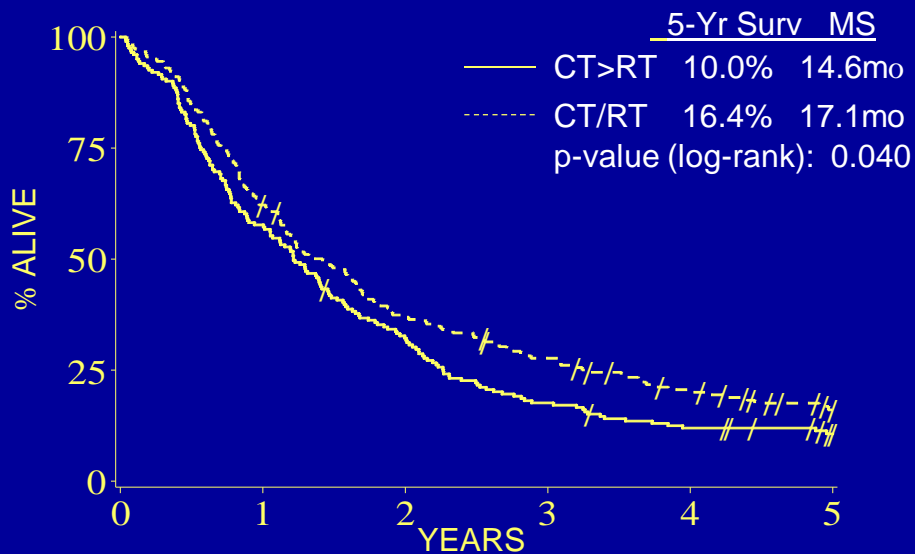
Radiation Therapy (RT) vs Induction Chemotherapy/RT in Unresectable Stage III NSCLC – The “Dillman” Trial



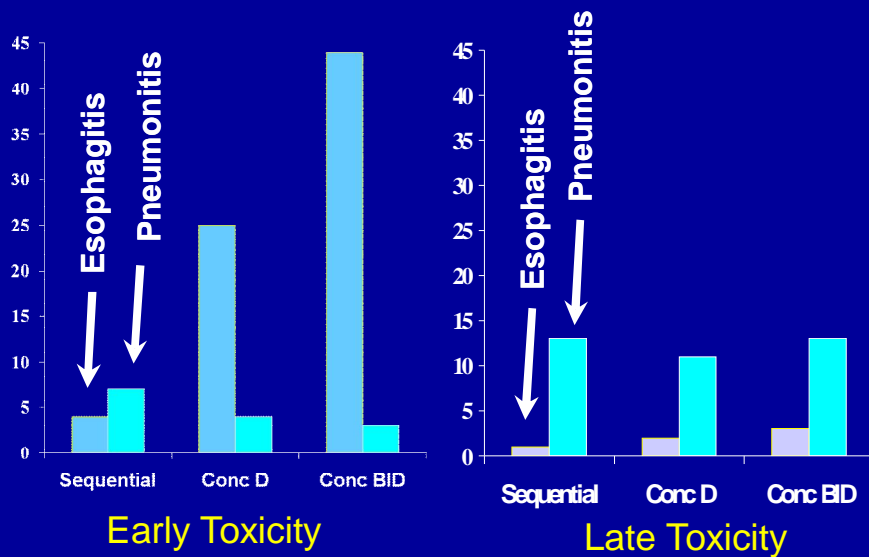
Dillman RO et al. *N Engl J Med.* 1990;323:940-945.

SEQUENCING QUESTION

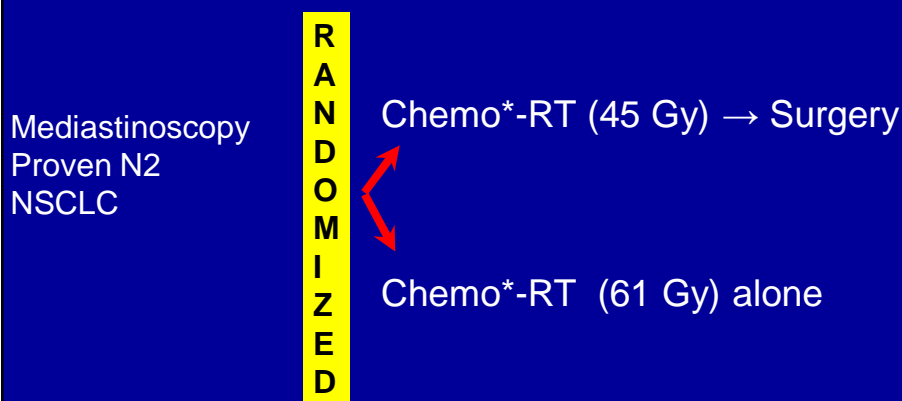
RTOG 9410 : 5-Yr Survival CT→RT vs. CT/RT



Early & Late Toxicity Comparison between Sequential & Concurrent Chemo-RT in RTOG 9410

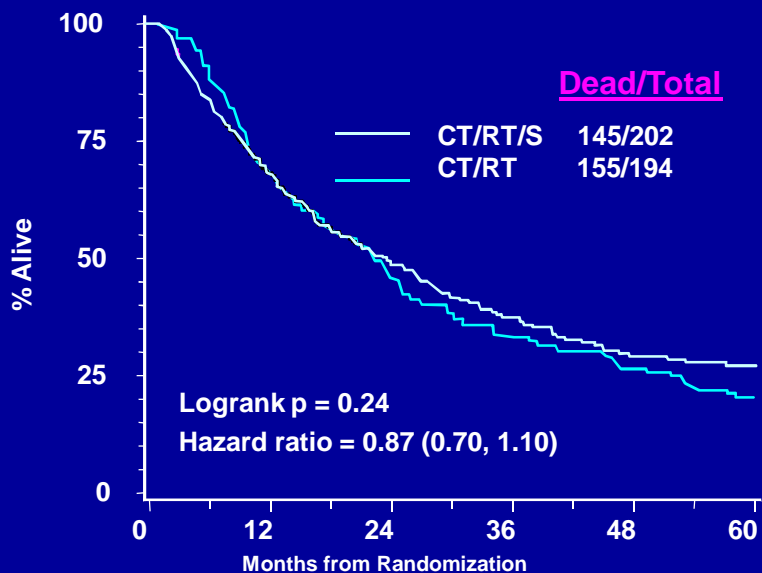


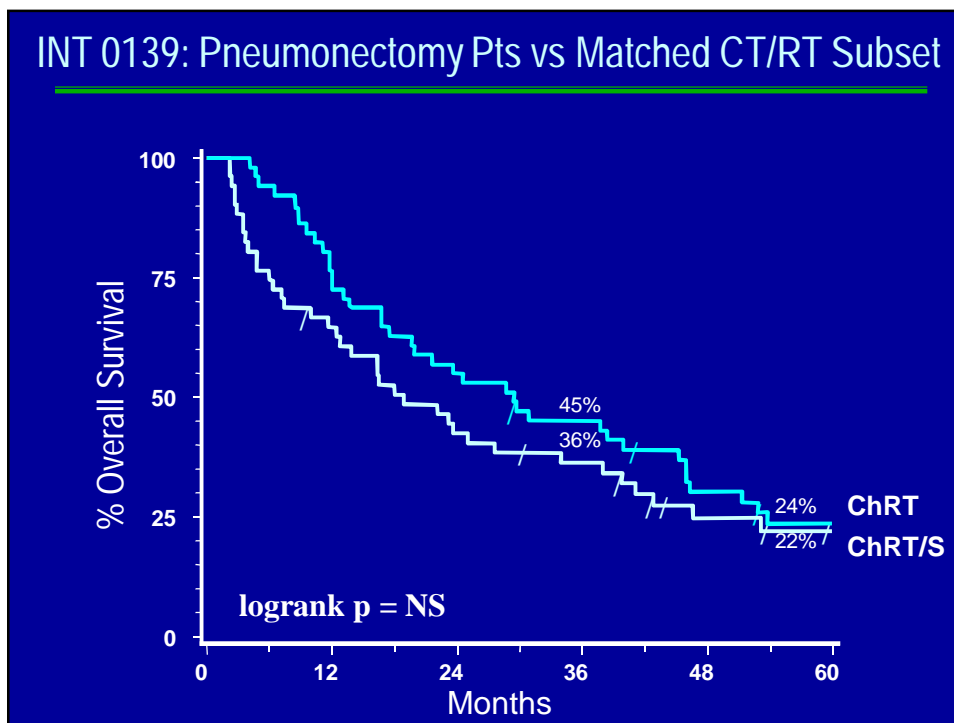
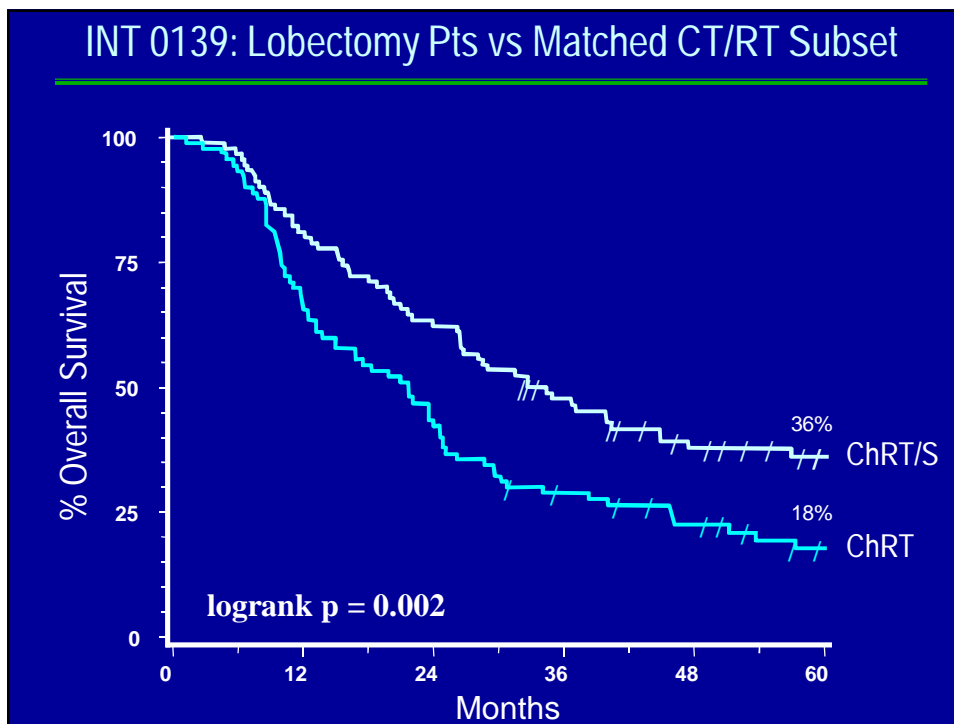
Role of Surgery in Stage IIIA N2 NSCLC Intergroup Trial 0139 (Albain K et al. Lancet 2009)



*Full dose concurrent cisplatin/etoposide

Intergroup 0139/RTOG 9309 Overall Survival by Treatment Arms





Patient Selection Issues

- Performance status is key
- Pulmonary function must be assessed
- Age and Co-morbidities
- Important that the right surgeon performs such a surgery

SUBSETS OF STAGE IIIA NSCLC

IIIA

- Mediastinal node metastases documented preoperatively (mediastinoscopy or PET).
- Potentially resectable. Consider resection **only** after neoadjuvant therapy in a clinical trial.
- **Current ACCP 2007 Recommendation: Concurrent chemoradiotherapy; no surgery.**
- This subset is the subject of most current neoadjuvant (pre-operative) therapy trials.

Locally Advanced NSCLC “Un-resectable” and “Resectable”

- Unresectable
 - Bulky node
 - Multi-station lymph node involvement
 - Invasion of mediastinal structures
- Resectable

My Conclusions

Surgery is the better local treatment when a lobectomy can be performed.

One should decide upfront whether a patient is a candidate for Lobectomy or would require a pneumonectomy.

If a patient requires a pneumonectomy then a definitive chemotherapy-radiation therapy approach should be preferred.

***The real reason why dinosaurs
became extinct***

