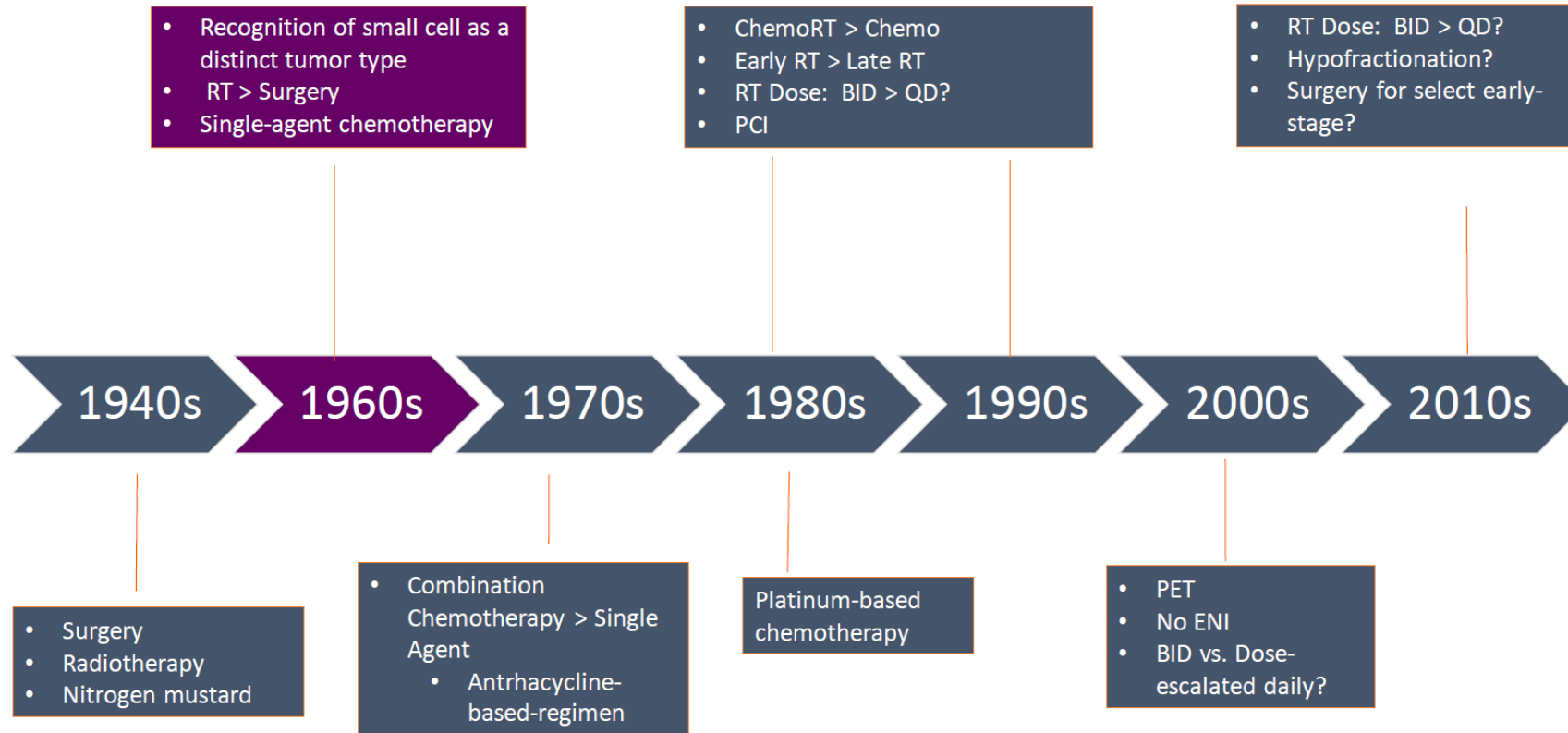


# Ακτινοθεραπεία στον Καρκίνο του Πνεύμονα

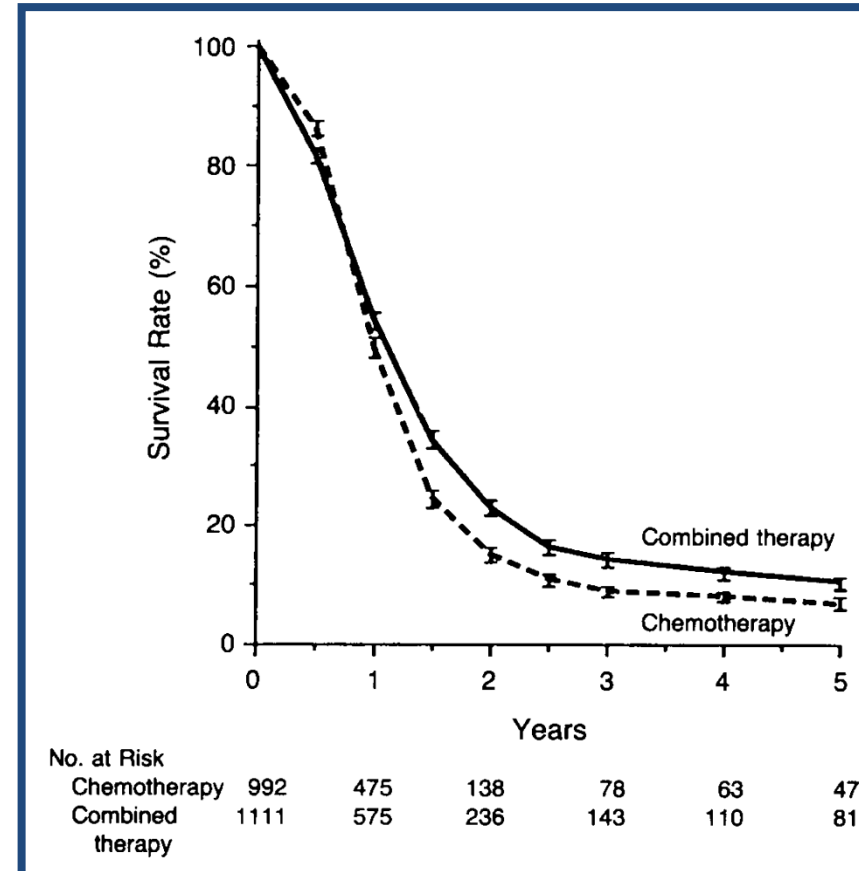
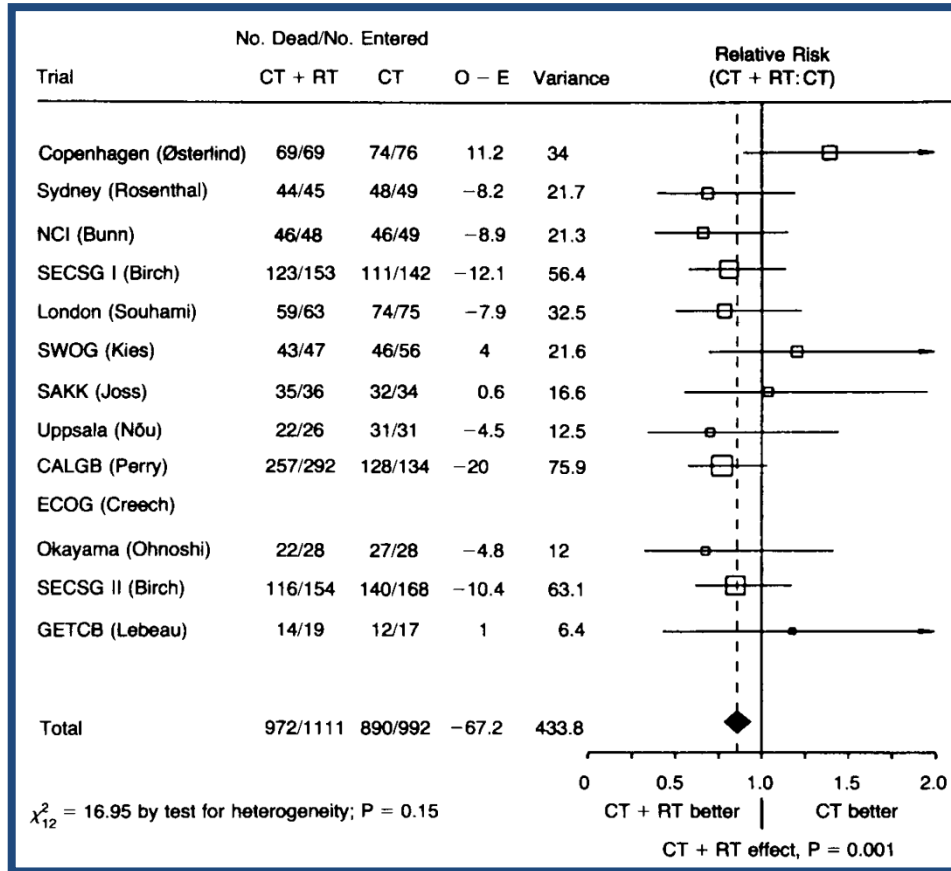
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Ακτινοθεραπευτής - Ογκολόγος

# Ακτινοθεραπεία μικροκυτταρικού καρκίνου πνεύμονα

# Timeline of SCLC



# A META-ANALYSIS OF THORACIC RADIOTHERAPY FOR SMALL-CELL LUNG CANCER



**ABSOLUTE IMPROVEMENT IN 3-YEAR OVERALL SURVIVAL: 5.4% (8.9 → 14.3)**

A Meta-Analysis of the Timing of Chest Irradiation  
in the Combined Modality Treatment of Limited-Stage  
Small Cell Lung Cancer

8 randomized controlled trials, 1574 pts

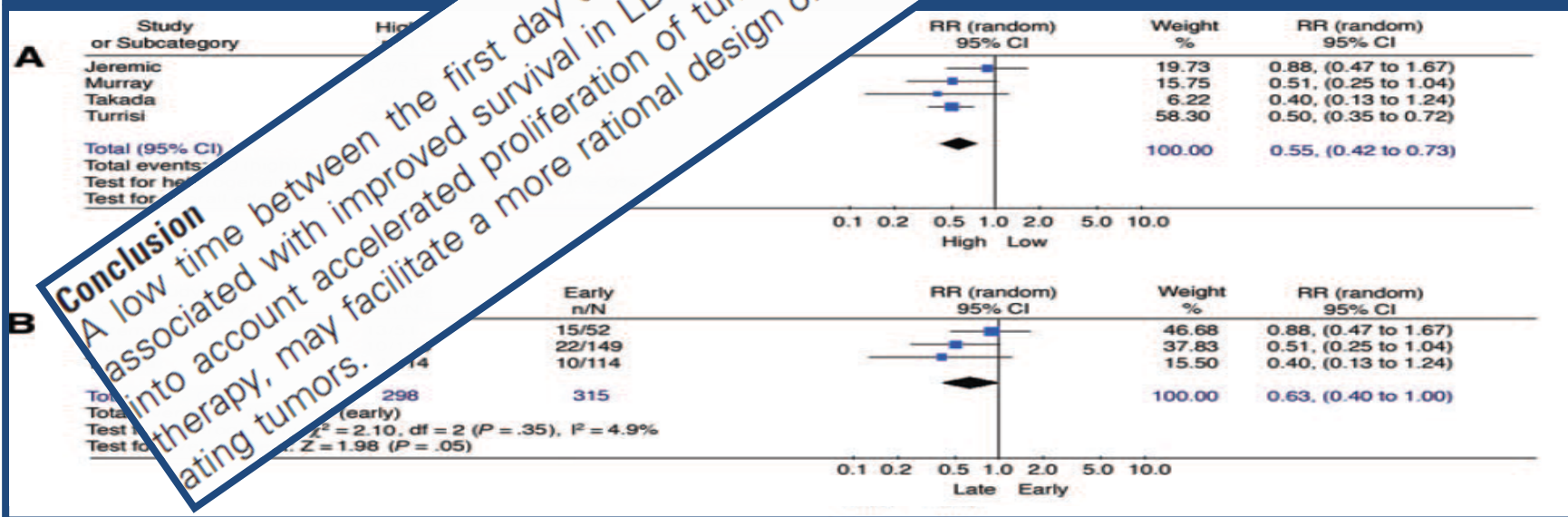
Initial concurrent CT-RT results superior to delayed or split course treatment.

EARLY RT: 60% survival at 2 years (OR 1.6); confirmed at 3 years (49%).

Platinum-Etoposide should be the standard regimen.

# Time Between the First Day of Chemotherapy and the Last Day of Chest Radiation Is the Most Important Predictor of Survival in Limited-Disease Small-Cell Lung Cancer

Study	No. of Patients	Radiation Schedule	Day That RT Was Started	Concurrent CT	5-Year % LC*	5-yr OS (days)	EQD <sub>2,T</sub> (Gy)
Murray et al <sup>28</sup>	155	40 Gy/15 f/19 d	21	Yes	NR	40	47.13
	153	40 Gy/15 f/19 d	105	Yes	7.5	166	47.13
Jeremic et al <sup>31</sup>	52	54 Gy/36 f/26 d	1	Yes	28.8	26	51.75
	51	54 Gy/36 f/26 d	42	Yes	25.4	61	51.75
Turrisi et al <sup>23</sup>	211	45 Gy/30 f/19 d	1-19	NR	33	19-38	48.02
	206	45 Gy/25 f/33 d	1-33	NR	16	33-52	39.35
Takada et al <sup>24</sup>	114	45 Gy/30 f/19 d	1-19	NR	9	20	48.02
	114	45 Gy/30 f/19 d	1-19	NR	4	103	48.02



**Conclusion**  
 A low time between the first day of chemotherapy and the last day of chest radiotherapy is associated with improved survival in LD-SCLC patients. The novel parameter SER, which takes into account accelerated proliferation of tumor clonogens during both radiotherapy and chemotherapy, may facilitate a more rational design of combined-modality treatment in rapidly proliferating tumors.

# TWICE-DAILY COMPARED WITH ONCE-DAILY THORACIC RADIOTHERAPY IN LIMITED SMALL-CELL LUNG CANCER TREATED CONCURRENTLY WITH CISPLATIN AND ETOPOSIDE



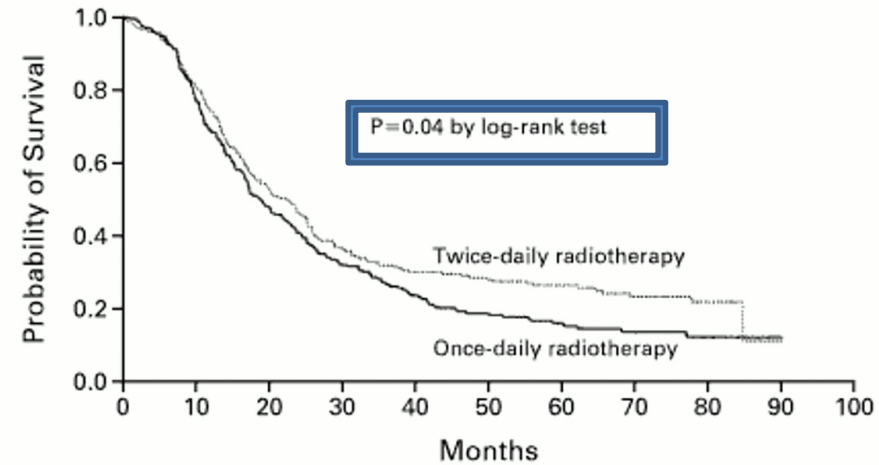
BID TRT benefit:  
median survival significantly longer:  
23 vs. 19 months

2yr survival: 47% vs. 41%

5yr survival: 26% vs. 16%

Local failure QD 52% vs BID 36%  
(p=0.06)

- Toxicity: Grade 3 esophagitis QD 11% vs. 27%, no difference in Grade 4 esophagitis
- Summary: established 45 Gy given twice daily over 3 weeks as standard regimen



TREATMENT GROUP	0-20 Mo	20-40 Mo	40-60 Mo	60-80 Mo	80-100 Mo
	no. of deaths/no. at risk				
Once daily	108/206	48/96	15/47	4/21	0/5
Twice daily	100/211	47/109	7/62	5/42	1/14

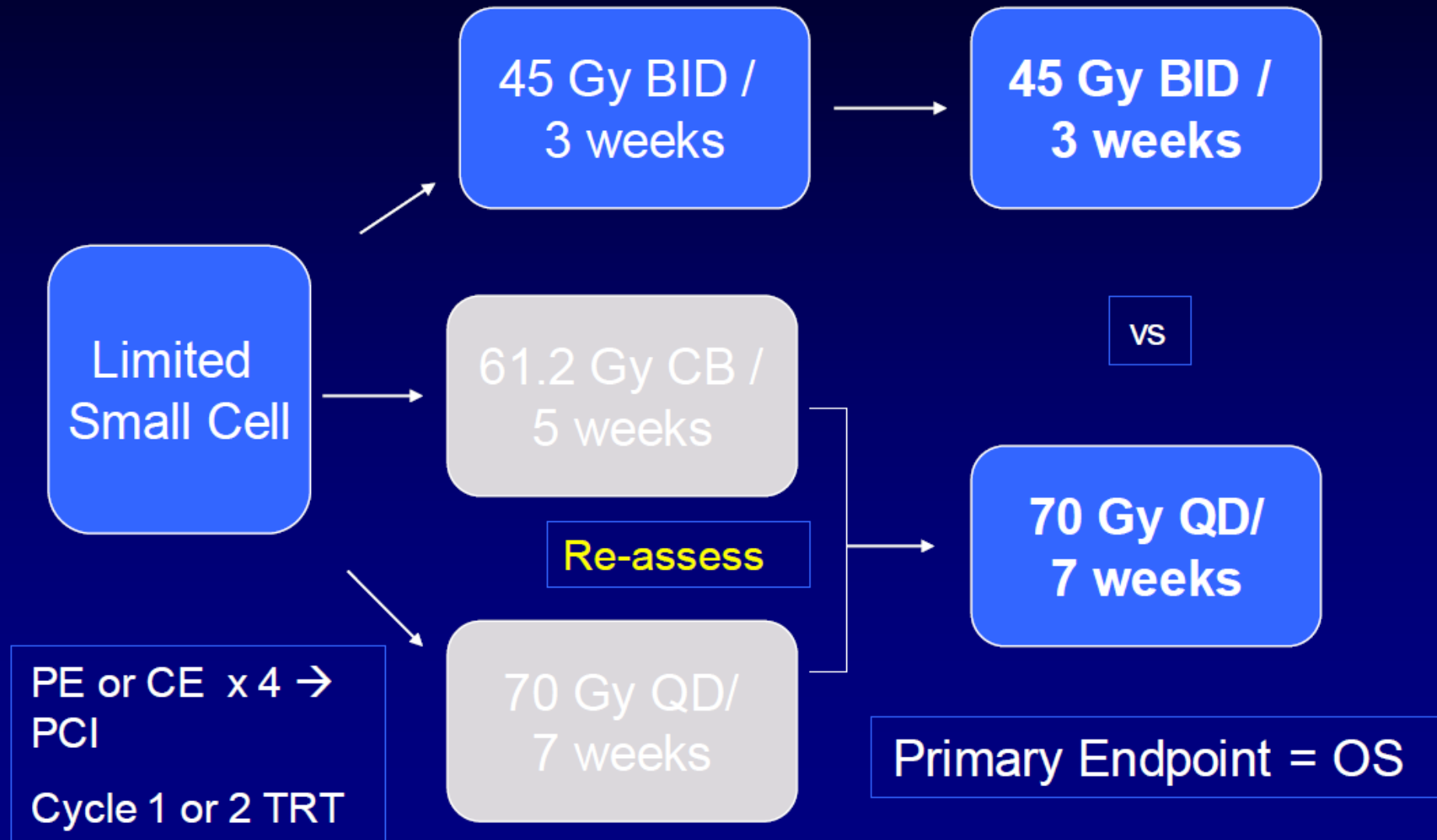
# Conclusions

- Survival in both arms was higher than previously reported
- Radiation-related toxicities were lower than expected likely due to the use of modern RT techniques
- OD RT did not result in a superior survival or worse toxicity than BD RT

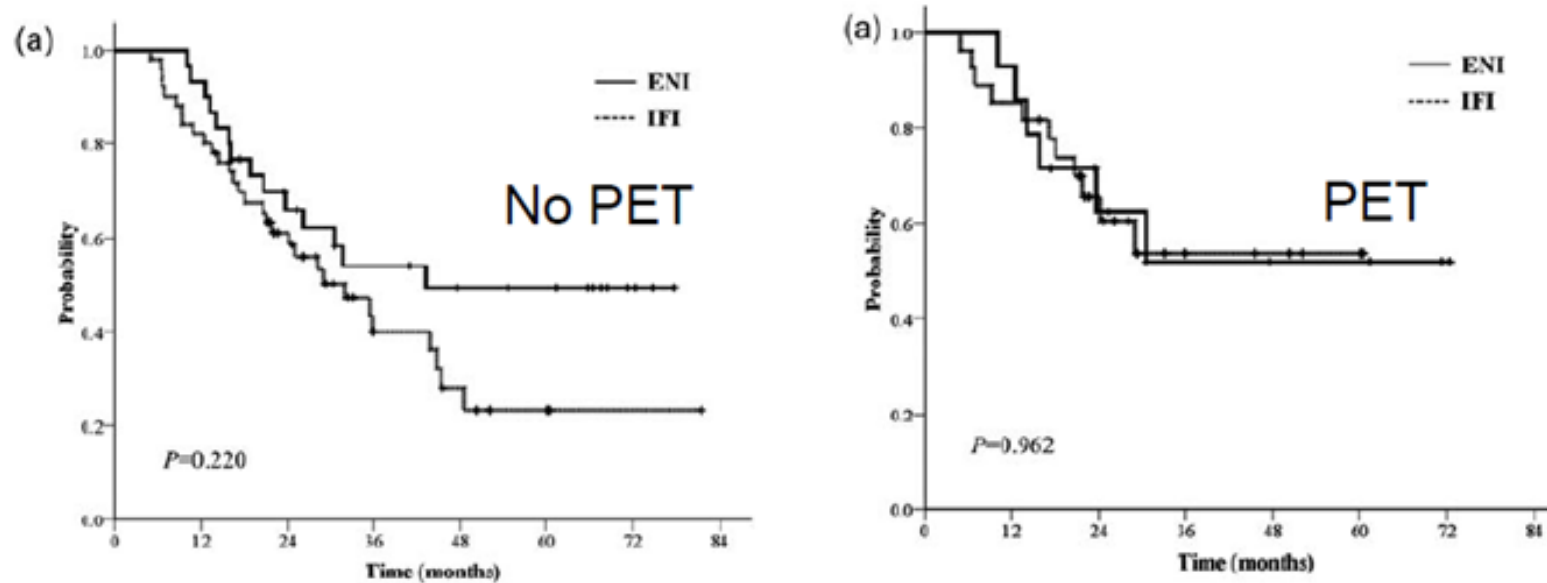




# Phase III: CALGB 30610/ RTOG 0538



# Comparison of Treatment Outcomes Between Involved-field and Elective Nodal Irradiation in Limited-stage Small Cell Lung Cancer



- IFRT appears ok in PET-staged patients
- ENI was utilized in Turrisi trial
- IFRT being investigated prospectively in Europe and RTOG