

**DÜNYA
AKCİĞER KANSERİ KONGRESİ
RADYOTERAPİ İZLENİMLERİ**

**Dr. Hale Başak Çağlar
Acıbadem Üniversitesi TF
Radyasyon Onkolojisi AD**

Topics (n=75)

	<u>%</u>
Stereotactic body radiotherapy	32
Imaging for target delineation	11
4D CT	5
PET	5
4D PET	1
Image guided radiotherapy	6
Adaptive	3
Fractionation (hypo)	5

	<u>%</u>
Chemoradiation	4
IMRT	5
Protons	3
Dose escalation	3
PCI (non-small cell)	3
Toxicity	11
Oesophagus	1
Pulmonary	5
Brachial plexus	1
Rib/chest wall	3

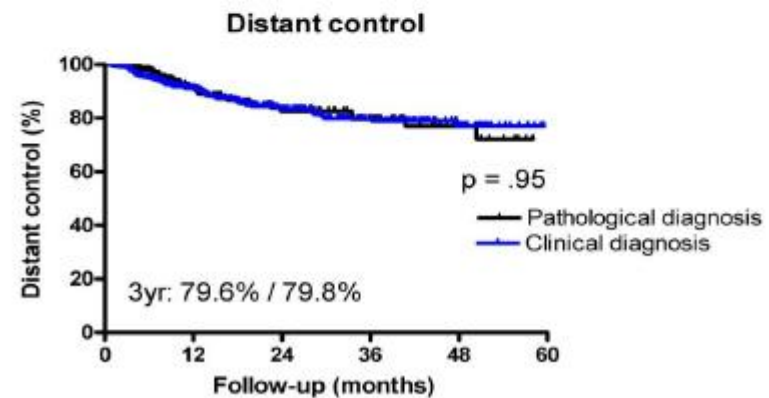
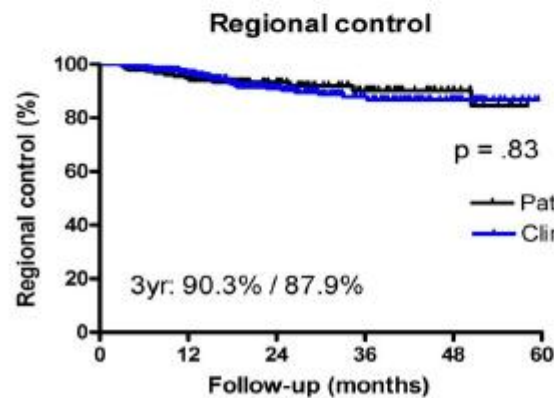
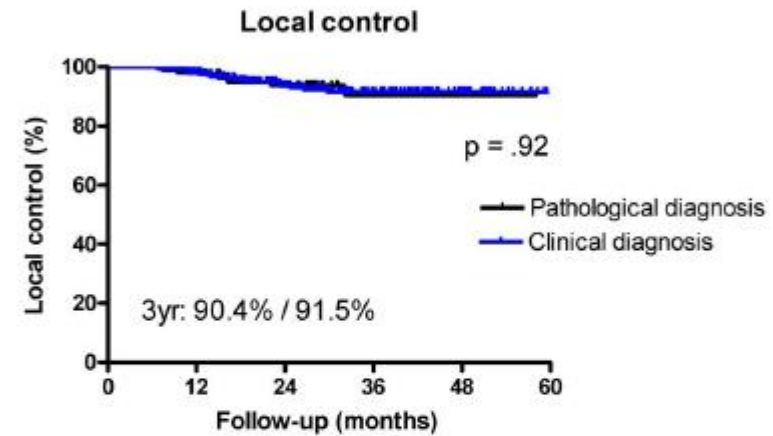
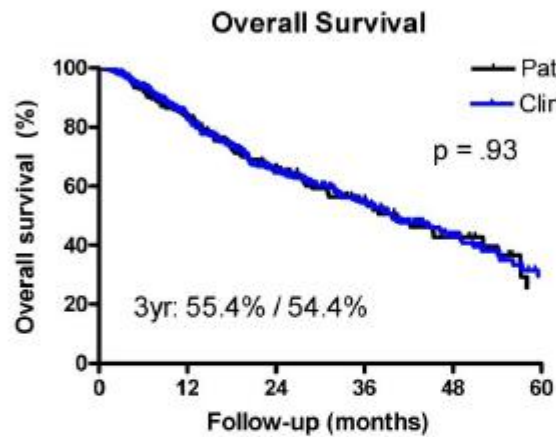
Stereotactic Ablative Radiotherapy (SABR) in
patients with stage I non-small cell lung
cancer: a comparison of patients with and
without pathological proof

N.E. Versteegen

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Results: Survival and Recurrences



Stereotactic ablative radiotherapy (SABR) in potentially operable Stage I non-small cell lung cancer patients



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Disclosure:

The VUmc receives research support from Varian Medical Systems and BrainLAB

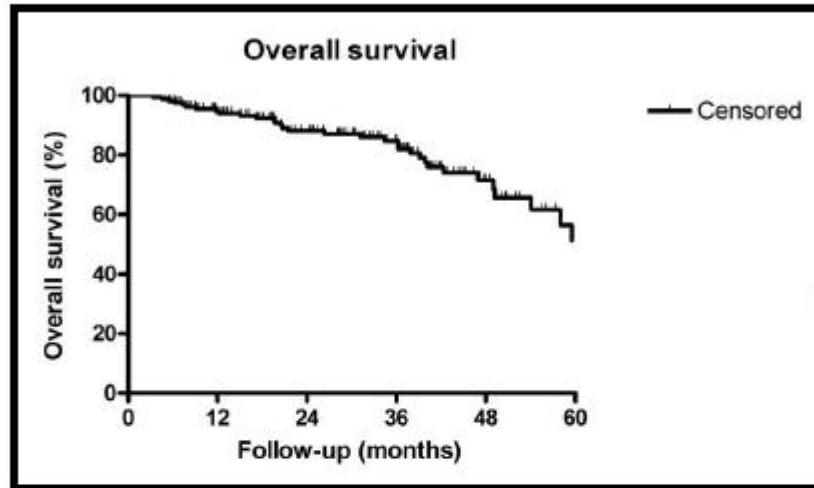
SABR for potentially operable patients at VUmc

177 operable pts retrospectively selected from SABR database (n=676) by **excluding**:

- those with prior high-dose (chemo-)radiotherapy or pneumonectomy (N=23)
- those with GOLD Class ≥ 3 (N=216)
- those with WHO performance score ≥ 3 (N=23)
- those with cardiovascular co-morbidity precluding surgery (N=94)
- those with concurrent other malignancy (N=50)
- those with major co-morbidity precluding surgery, e.g. recent CVA, renal failure (N=68)

Gender	57% male:43% female
Age	Median 76 years (range 50–91 years)
Stage	
IA	n = 106 (60%)
IB	n = 71 (40%)
Tumor diameter	Median 26 mm (range 10–70mm)
Fractionation scheme	
18 Gy x 3	n = 61 (34%)
11 Gy x 5	n = 82 (46%)
7.5 Gy x 8	n = 34 (19%)
GOLD class	
No COPD	n = 65 (37%)
Class I	n = 37 (21%)
Class II	n = 75 (42%)
Charlson morbidity score	
0-1	n = 77 (43%)
2-3	n = 77 (43%)
4-5	n = 23 (14%)

SABR for 177 potentially operable patients at VUmc



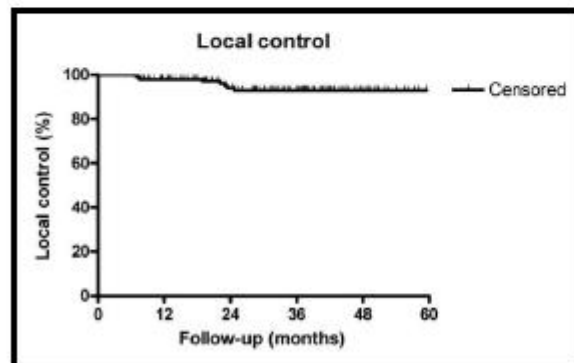
Operable pts

Median survival 5.1 years

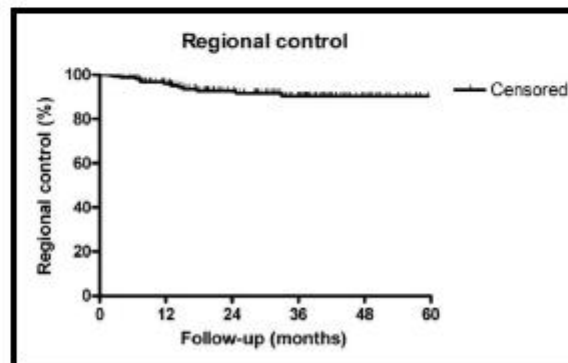
2-year survival 88%

3 year survival 85%

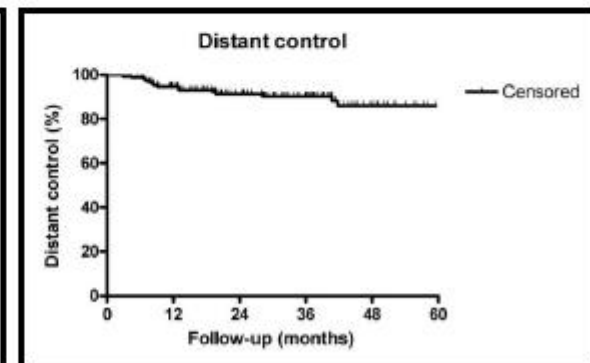
5 year survival 51%



Local control 93% @3 years



Regional control 90% @3 years



Distant control 90% @3 years

SABR for operable patients: Conclusions

- Utilization of SABR in potentially operable, but high-risk Dutch patients with stage I NSCLC is increasing
- 30-day mortality rate after SABR was 0%, versus a calculated 30-day post-surgical mortality of 2.6% in this group of patients
- Despite the mainly elderly patients with considerable comorbidity, median survival after SABR exceeded 5 years
- Endoscopic staging should be encouraged [Nakajima T, 2010; Harley D, 2010]
- These data support the randomized comparative trials of surgery and SABR

Princess Margaret Hospital
University Health Network



Beaumont[®]
William Beaumont Hospital

NKI-AVL

The Netherlands Cancer Institute
Antoni van Leeuwenhoek Hospital



Universitätsklinikum Würzburg



Jefferson[™]
Kimmel Cancer Center
NCI-designated

Outcomes of medically operable patients with non-small cell lung carcinoma (NSCLC) treated with image-guided stereotactic body radiation therapy (IG-SBRT)

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Matthias Guckenberger, M.D., Maria Werner-Wasik,
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Research partially supported by a grant from

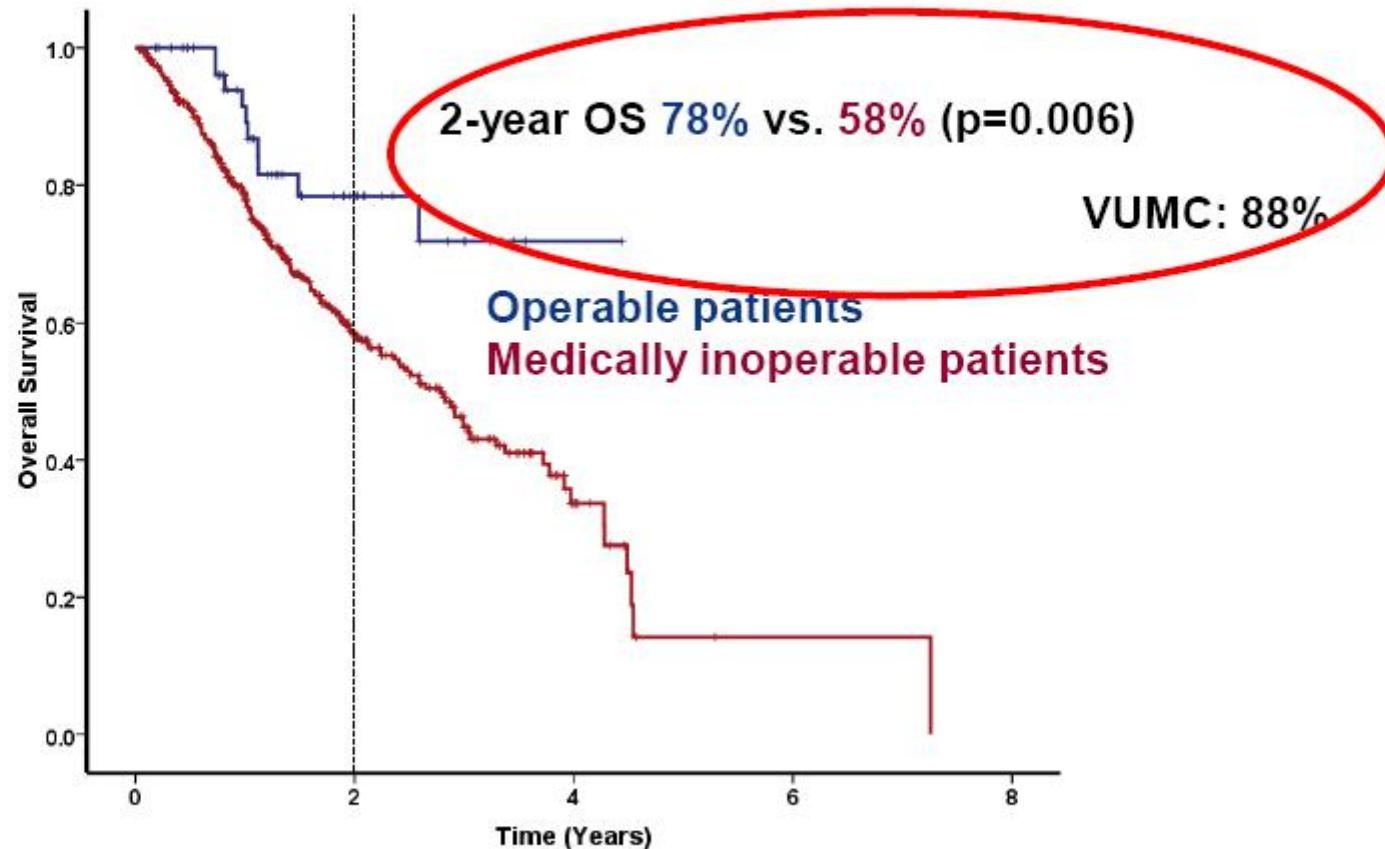


ELEKTA

Patients

- 505 tumors in 483 patients with clinical stage T1-T3 N0 NSCLC (1998-2010) from 5 international centers
 - 448 (87%) inoperable patients
 - 57 (13%) in operable patients declining surgery.
 - Median tumor size 2.6cm (0.8-8.5cm)
 - All treated with online CBCT image-guided SBRT
 - Most common dose/fractionations:
 - 48Gy/4# (n=128)
 - 54-60Gy/3# (n=231)
- Follow-up: Mean 1.6 years; median 1.5y

Overall survival rate



For all patients, the 2-year OS was 62%.

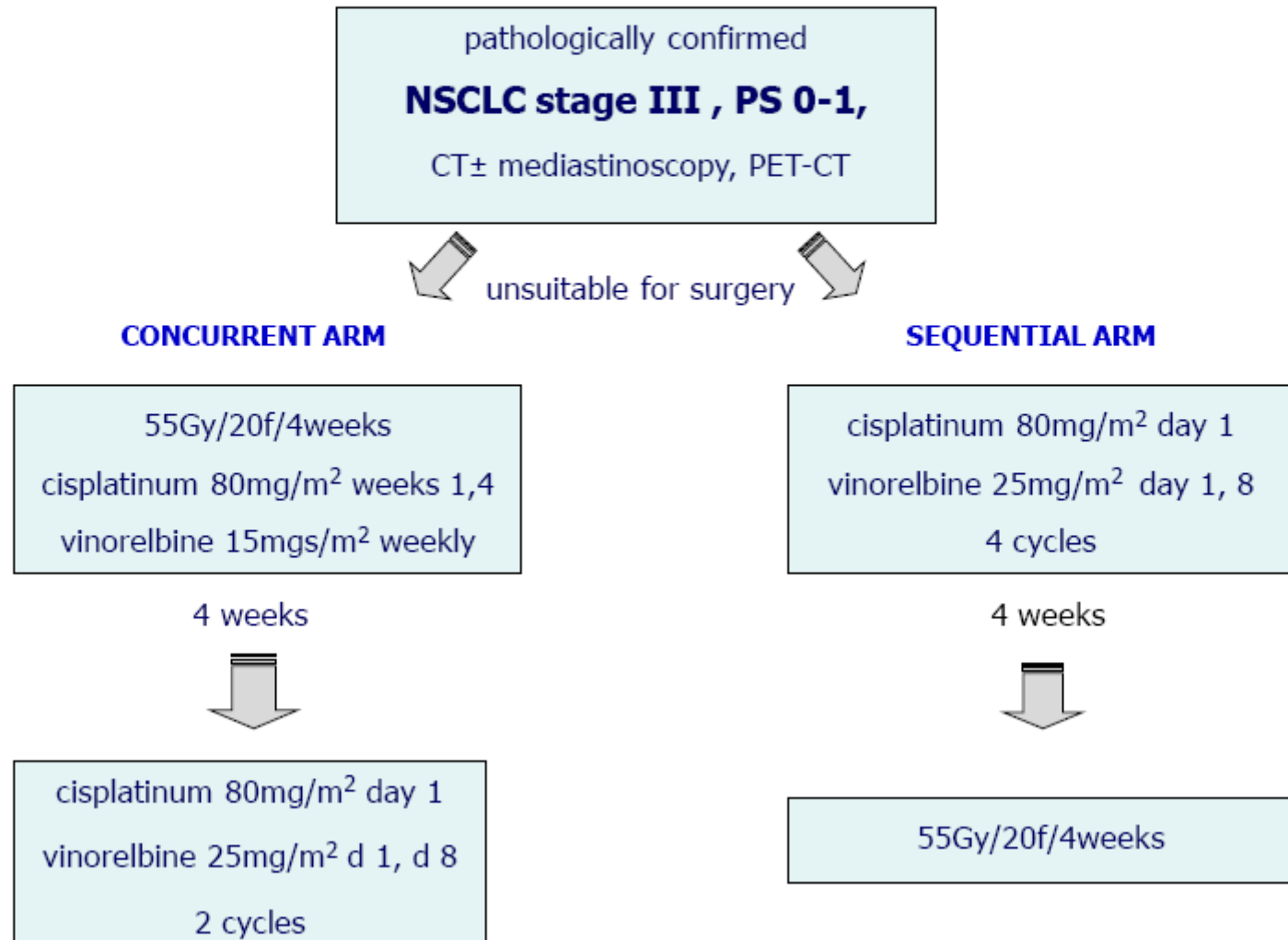
Conclusions

- Operable patients declining a thoracotomy treated with IG-SBRT had overall survival and cancer-specific outcomes similar to surgical series.
- Both operable and inoperable patients had similar cancer-specific survival.
- Although additional follow-up is required, our data support the continued investigation of IG-SBRT as a potentially equivalent alternative to surgical treatment in operable patients.

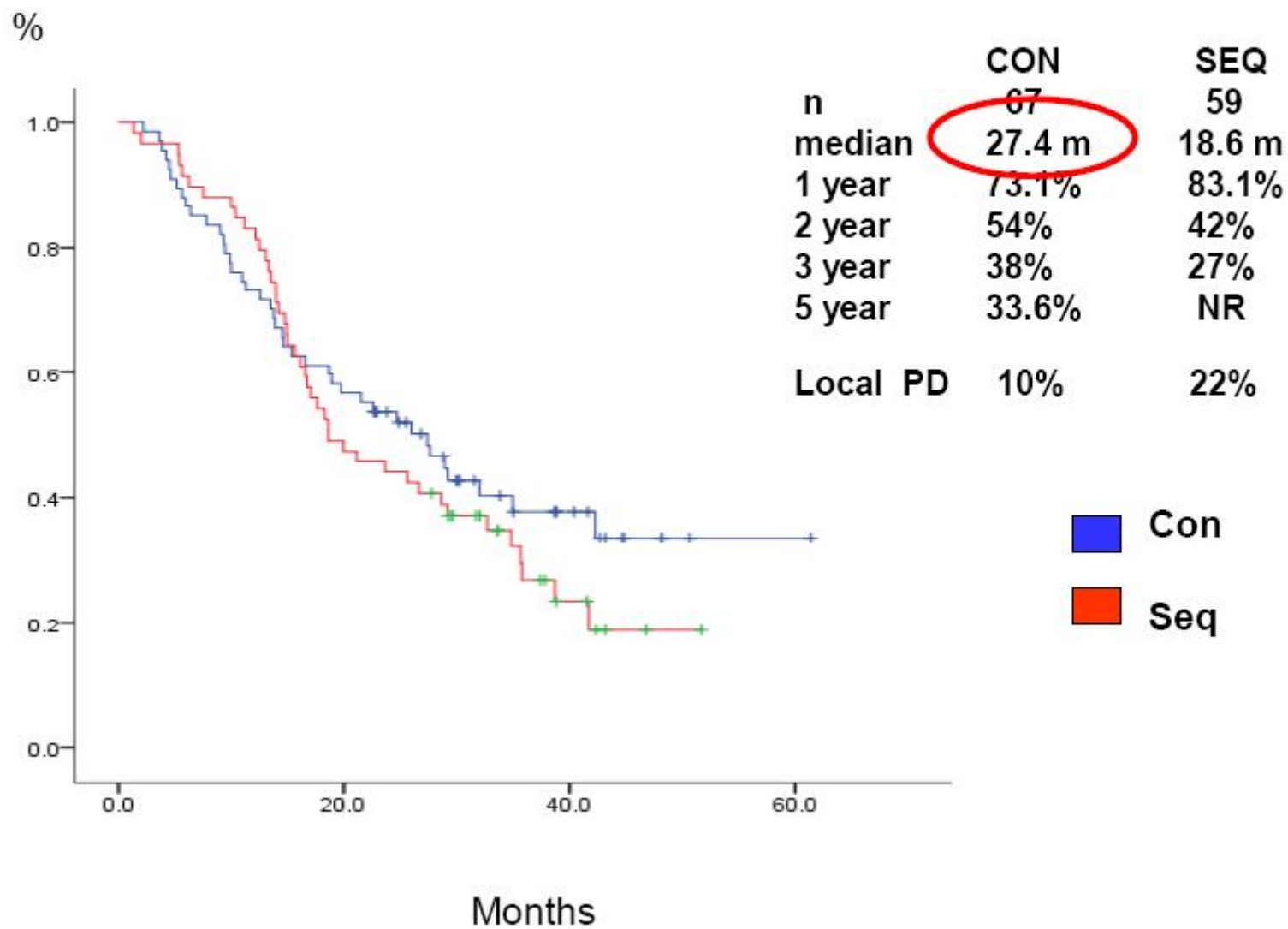
SOCCAR

a Phase II Trial of Sequential Versus
Concurrent Chemotherapy and Radiotherapy
Using an Accelerated Hypofractionated
Radiation Schedule in Stage III NSCLC

J Maguire, R McMenamin,
N O'Rourke, C Peedell, M Snee,
S McNee, V Kelly



SOCCAR NSCLC Stage III PS 0 - 1



Conclusions

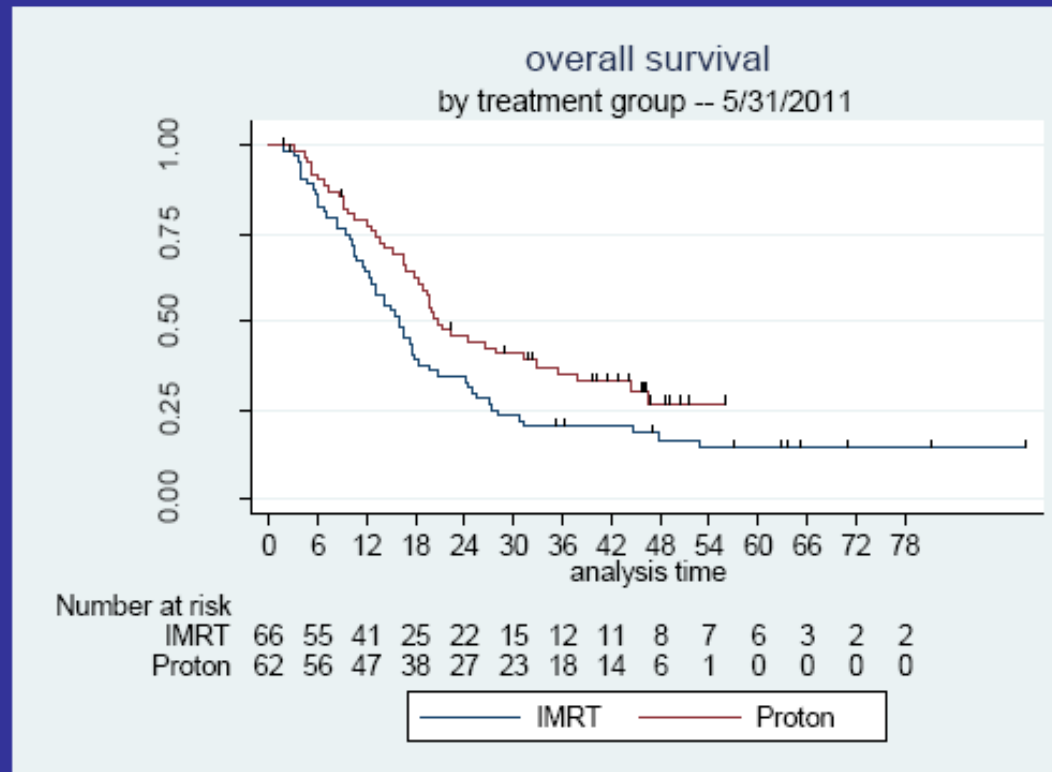
- 55Gy/20f/26-28d with concurrent cisplatin and vinorelbine is a highly effective treatment for stage III NSCLC, PS 0-1
- 2 year survival in concurrent group > 50%
- Grade 3 oesophagitis: 17%; no grade 4

Early Findings on Toxicity of Proton Beam Therapy with Concurrent Chemotherapy for NSCLC

J Cox

MD Anderson

Overall Survival by Treatment Group



Log rank $p=0.0383$

