Retrospective community based explorative study on Cisplatin-based adjuvant chemotherapy vs. surgery only in completely resected stage IB non-small cell lung cancer (NSCLC)

Wallerek, Sandra ; Græsbøll, Kaare; Sørensen, Jens Benn

Publication date:
2014

Document Version
Publisher's PDF, also known as Version of record

Rigshospitalet Department of Oncology

FACULTY OF HEALTH AND MEDICAL SCIENCES
UNIVERSITY OF COPENHAGEN

Retrospective community based explorative study on Cisplatin-based adjuvant chemotherapy vs. surgery only in completely resected stage IB non-small cell lung cancer (NSCLC).

Sandra Wallerek, MD[1], Kaare Græsbøll, PhD[2], Jens Benn Sørensen, MD, DMSc[1]
[1]Dept. of Oncology, Rigshospitalet, Copenhagen, Denmark.
[2]Dept. Of Applied Mathematics and Computer Science, Technical University of Denmark, Lyngby, Denmark

Background

The benefit of adjuvant chemotherapy (ACT) following complete surgery in NSCLC stage IB is not fully clarified. ACT in this situation is currently considered optional (ESMO guidelines).

Aim

- Examine a consecutive group of unselected completely resected NSCLC stage IB patients who either received adjuvant chemotherapy or surgical resection only
- compare overall survival (OS) and disease free survival (DFS) between the two groups

Methods

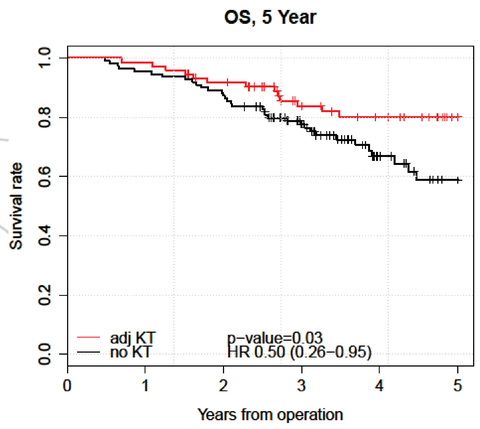
- Patients underwent complete radical surgery, 2005-2012
- All patients were considered fit for ACT with cisplatin and vinorelbine were offered adjuvant tretment.
- Some pts decided to receive ACT creating the proband group (PG)
- Other patients declined being the control group (CG)
- 63 variables were collected from medical and surgical records.
- Co-morbidity was scored according to Charlson's co-morbidity score (CCMS).
- OS and DFS were calculated using Kaplan-Meier plots A multivariate Cox regression analysis was performed to explore on predictors for outcome.

Results

- Totally 184 pts were reviewed, patient characteristics presented in table 1.
- The patients in the CG were older (p<0.001), had higher CCMS (p<0.001), and had more pts with pleural invasion (p=0.028) than the PG group.
- OS: 5-year OS was 80 % for PG vs. 59 % in CG, p: 0.03
- DFS: 5-year DFS in PG was 73 % and 54 % in CG, p=0.024.
- The Cox regression analysis, table 2 revealed that ACT (p=0.02), low CCS (p=0.003) and low performance status (p=0.035) were independent significant prognostic factors regarding better OS.

Conclusions

Patients who decided to receive ACT were younger and had lower CCS. ACT was an independent prognostic factor and patients receiving ACT benefitted significantly with respect to both DFS and OS when compared to controls without ACT.



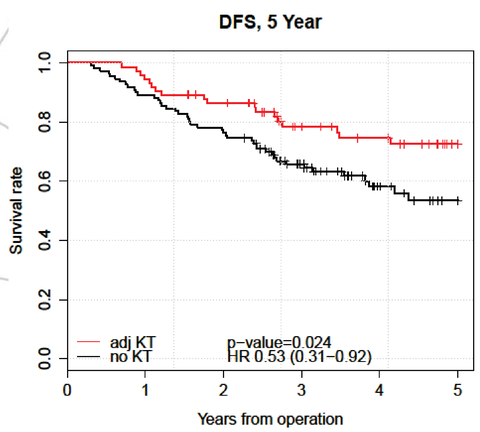


Table 2. Factors influencing OS and DFS in a multivariate setting

Overall survival, 5-year		
Variable	p-value	HR (95 % CI)
ACT	0.02	0.33 (0.13-0.84)
CCM score	0.003	1.31 (1.09-1.56)
Perfomance status	0.035	1.92 (1.05-3.52)
Disease free survival, 5-year		
Variable	p-value	HR (95 % CI)
ACT	0.026	0.49 (0.26-0.92)
CCM score	0.007	1.23 (1.06-1.43)
Method used: cox proportional hazard		

Table 1. Patient characteristics

	Proband group	Control group	p-value
	n= 74 (%)	n= 110 (%)	
Age (median, (range))	64 (40-78)	68 (44-81)	<0.001
Gender			
-female	45 (60)	63 (57)	0.65
-male	29 (40)	47 (43)	0.63
Performance status			0.13
0	31 (42)	53 (48)	
1	18 (24)	49 (45)	
2		2 (2)	
NA	25 (34)	6 (5)	
Smoking status			0.67
-Active smoker	50 (68)	77 (70)	
-Earlier smoker (quit >1 year ago)	19 (25)	28 (25)	
-Never smoker	5 (7)	5 (5)	
Histologi			0.62
-adenocarcinoma	52 (70)	74 (67)	
-squamous cell carcinoma	16 (22)	23 (21)	
-other	6 (8)	13 (12)	
Tumorsize, mm (median, (range))	33 (7-90)	32 (8-90)	0.25
Charlson's Comorbidity Score			<0.001
Low (0-2)	30 (41)	23 (21)	
Moderate (3-5)	35 (47)	77 (70)	
High > 5	1 (1)	10 (9)	
NA	8 (11)		
Pleural invasion			0.028
No pleural involvement	23 (31)	18 (16)	
Pleural involvement	47 (64)	87 (79)	
Tumorgrowth through the pleura	3 (4)	5 (5)	
NA	1 (1)		

GLOBAL EXCELLENCE IN HEALTH

* Corresponding author:
sandra.wallerek.01@regionh.dk