

Abstract #47625

Treatment of the elderly when cure is the goal: The influence of age on treatment selection and efficacy for stage III non-small cell lung cancer (NSCLC).

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Background: Treatment of elderly patients with stage III NSCLC is controversial. Limited data exist since the elderly are under-represented in clinical trials.

Methods: Following ethics approval, we performed a retrospective review of 1,302 stage III NSCLC patients, treated at our institution 1997-2007. Patients with “wet IIIB” and N2 discovered only postoperatively were excluded, leaving 637 who were classified by treatment plan: palliative (palliative chemotherapy or radiation [≤ 40 Gy]); nonsurgical (>40 Gy radiation +/- chemotherapy); trimodality (chemotherapy, radiation, surgery). Demographics, treatment, toxicity, and survival were analysed by age: 0-65 (n=339), 66-75 (n=223), 76+ years (n=75) and compared using log-rank and univariate statistical tests. **Results:** Patients >65 were more likely to have poor performance status (PS, $p < 0.0001$), multiple comorbidities ($p < 0.0001$), and to receive palliative therapy only ($p < 0.0001$). Older and younger patients treated with nonsurgical or surgical therapy with curative intent had similar rates of Gr3/4 toxicity (39%, (0-65) 43%, (66-75) 5%, (>75) $p = 0.18$), and toxic death (4%, 4%, 0, $p = 0.49$). Survival was worse with increasing age, $p < 0.0001$, likely due to greater use of palliative treatment in the elderly. When survival of patients treated with *curative intent* was analyzed by age there was no difference between age groups for nonsurgical ($p = 0.11$), or surgical ($p = 0.57$) therapy. **Conclusions:** In well-selected fit elderly patients combined modality therapy is tolerable and is associated with survival similar to that of younger patients.

Table 1. Analysis of Demographics and Treatment plan according to age.

Variable	Category	0-65	66-75	76+	p value
		%	%	%	
Sex	F	41	38	41	0.70
	M	59	62	59	

ECOG PS	0	22	20	17	<0.0001
	1	66	52	43	
	2+	12	38	40	
Histology	Adeno	46	42	43	0.02
	Squam	31	36	40	
	Other	13	22	17	
Stage	IIIA	51	51	53	0.82
	IIIB	49	49	47	
Comorbidity*	0	63	41	33	<0.0001
	1-2	31	43	40	
	3+	6	16	27	
Treatment	Palliative	14	37	69	<0.0001
	Nonsurgical	46	39	21	
	Trimodality	40	24	10	
Survival (mo)	Palliative	7.8	7.0	11	0.64
	Nonsurgical	17.4	12.6	20.0	0.11
	Trimodality	33.4	28.6	27.7	0.57

*Charlson comorbidity index (CCI), adjusted for lung cancer.
