most patients. However, adequate supportive care is necessary for the toxicity during the period of cetuximab-based radiotherapy.
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Response of NC, BRT, and the best overall response

	NC	BRT	Overall
Evaluable patients (N)	47	39	ITT (Total N = 47)
CR	1	3	3
PR	22	26	30
SD	22	3	12
PD	2	7	2

8514 POSTER DISCUSSION

Should Elderly Patients With Locally Advanced Oropharyngeal Squamous Cell Carcinoma Be Offered the Same Curative Treatment Options as Younger Patients?

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Background: Elderly patients with head and neck cancer are less likely to receive aggressive anti-cancer therapy than younger patients due to concerns over their ability to tolerate such treatments. There is now increasing evidence suggesting that treatment decisions should not be based on chronological age alone. Most of these studies however are not site-specific. The aim of this report is to compare treatment compliance and outcome between the elderly (defined as 65 years and above) and younger patients with locally advanced oropharyngeal squamous cell carcinoma.
Materials and Methods: In our institution, treatment decisions for patients with locally advanced oropharyngeal squamous cell carcinoma are based on disease characteristics, performance status and co-morbidity score, not chronological age. Treatment protocol consists of 3 cycles of induction chemotherapy (IC) with cisplatin and 5-fluorouracil followed by radical radiotherapy (RT) with concomitant weekly carboplatin (CC). Patients with histologically confirmed AJCC stage III-IVB squamous cell carcinoma of the oropharynx who received non-surgical therapy with curative intent were identified from our electronic database and included in this study.
Results: 144 patients were identified, 113 males and 31 females. 50 patients were elderly. Median follow-up was 24 months. The following table shows the disease characteristics, compliance data on IC, RT and CC and treatment outcomes expressed as recurrence-free survival (RFS), disease-specific survival (DSS) and overall survival (OS).

	Younger	Elderly	p-value
Number of patients in the study	94 (65%)	50 (35%)	
Median age (years)	54	74	
Age range (years)	26–64	65–89	
AJCC stage			
III	18%	26%	
IVA	82%	64%	
IVB	0%	10%	
Disease subsite			
Tonsil	66%	64%	
Base of tongue	29%	24%	
Soft palate	2%	10%	
Posterior pharyngeal wall	3%	2%	
Planned IC cycles delivered	91%	89%	
Planned CC cycles delivered	79%	74%	
Completed radical RT with no prolongation of treatment duration by more than 2 days	96%	82%	
Did not complete radical RT	2%	8%	
Estimated 5-year RFS	79%	70%	0.213
Estimated 5-year DSS	82%	76%	0.160
Estimated 5-year OS	70%	53%	0.006

Conclusions: Treatment compliance of elderly patients is comparable to that of the younger cohort. There is no statistically significant difference in estimated 5-year RFS and DSS between the two groups. The difference in estimated 5-year OS is due to more non-cancer-related deaths among the elderly patients. Elderly patients with locally advanced oropharyngeal squamous cell carcinoma should be offered the same curative treatment options as their younger counterparts.

8515 POSTER DISCUSSION

A Dose Escalation Study With Intensity Modulated Radiation Therapy (IMRT) in Moderately Advanced (T2N0, T2N1, T3N0) Squamous Cell Carcinomas (SCC) of the Oropharynx, Larynx and Hypopharynx Using a Simultaneous Integrated Boost (SIB) Approach

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Background: The simultaneous integrated boost technique with dose per fraction slightly higher than 2 Gy offers the advantages of shortening the treatment time and increasing the biologically equivalent dose to the tumour. The aim of this study was to evaluate the feasibility of a dose-escalating radiotherapy treatment by using a SIB-IMRT approach in patients treated for moderately advanced head and neck cancers.
Materials and Methods: Between September 2004 and May 2008, 57 consecutive patients with T2N0, T2N1 or T3N0 pharyngo-laryngeal SCC were included. The therapeutic PTVs were treated according to three dose levels ie, 69 Gy in 30 fractions of 2.3 Gy (Level I), 72 Gy in 30 fractions of 2.4 Gy (Level II) and 75 Gy in 30 fractions of 2.5 Gy (Level III). The prophylactic PTVs received a dose of 55.5 Gy delivered in 30 fractions of 1.85 Gy. The overall treatment time was 6 weeks for all patients. The primary endpoint of the study was acute toxicity assessed during treatment and during the first 3 months following the completion of radiotherapy. The secondary endpoints included loco-regional control, disease-free survival, overall survival and late toxicity at 2 years of follow-up. The study design allowed patients to be enrolled in the second dose level group if no more than 10% of grade 4 acute toxicity was observed on the first dose level group within 3 months after the completion of IMRT, and so on for the third level group.
Results: Forty four men and 13 women with a median age of 61 were included in the trial. The majority of them presented with oropharyngeal cancer (53%) and laryngeal cancer (33%). Most patients had T2N0 (61%) staged tumours, followed by T2N1 (21%) and T3N0 (18%). Only 3 patients developed grade 4 acute mucositis during treatment, one in each dose level. Thirty two patients experienced grade 3 toxicity (56%) during IMRT, mostly dermatitis and mucositis, without any significant difference between the groups. Late grade 1 and 2 xerostomia was seen in 51% and 35% of patients respectively. Transient grade 4 late toxicity was observed in 12% of all patients and was equally distributed among the groups. The 2-year loco-regional control was 82% for all 3 groups, without any substantial difference between them (79% dose-level I, 88% dose level II, 79% dose-level III). The 2-year overall survival was 89% for dose-level I and II, and 95% for dose-level III.
Conclusions: This dose escalation SIB-IMRT protocol was safe and highly effective as the sole treatment of moderately advanced SCC of head and neck. No toxicity or outcome difference was observed between groups. A phase III trial should be initiated to assess a dose-response relationship on tumour control with such SIB technique.

8516 POSTER DISCUSSION

Predictive Factors of Critical Weight Loss During Radiotherapy of Head and Neck Cancer

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Background: Critical weight loss during radiotherapy (RT) is common in head and neck cancer (H&N). Despite of preventive strategies to maintain adequate protein and energy intake, weight loss in H&N undergoing RT is still a serious problem. PEG tube insertion has been reported to be associated with a mortality rate of a few percent, and minor complications in over 30%, which calls for strict selection criteria for appropriate nutritional interventions. We explored patient-specific and treatment-related factors that predicted weight loss and need for feeding tube during RT.
Methods: 490 consecutively irradiated H&N patients were investigated retrospectively. Standardized registrations of patient-specific data before and during primary RT as reported to the database of DAHANCA were obtained and correlated to nutritional observations. All patients had received individual institutional dietary counseling followed by weekly nutritional assessments. Patients with pretreatment feeding tubes were