

**Supplementary Table 1:** Characteristics of irradiation and other antineoplastic treatments.

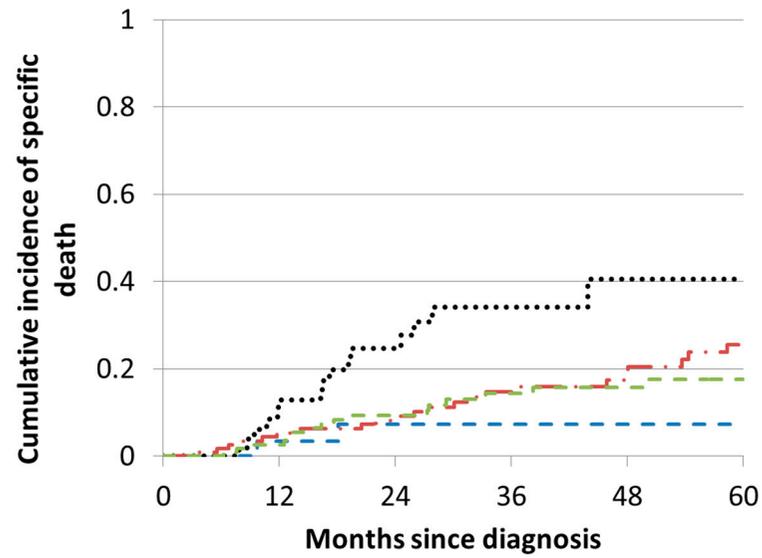
	All patients N=322	No ND N=53	Adenectomy N=33	Selective ND N=116	Modified radical/ radical ND N=120	p-value
<b>Radiotherapy</b>						
<b>Nodal irradiation</b>	<b>322(100%)</b>	<b>53(100%)</b>	<b>33(100%)</b>	<b>116 (100%)</b>	<b>120 (100%)</b>	-
Laterality of radiotherapy (N=287) <sup>a</sup>						<.001
Unilateral	55(19.2%)	10(21.3%)	14(46.7%)	17(16.2%)	14(13.3%)	
Bilateral	232(80.8%)	37(78.7%)	16(53.3%)	88(83.8%)	91(86.7%)	
Duration of radiotherapy (days)	49;48+/-11	53 ;53+/-8	49 ;	49+/-13	47;46+/-10.5	<.001
Dose (Gray Gy)	66;64+/-7	70 ;68+/-6-	66 ;66+/-7	66;63+/-7.5	66;63+/-6	<.001
Interval of >10 weeks between diagnosis and irradiation	168 (52.2%)	35(66.0%)	14(42.4%)	61 (52.6%)	58 (48.3%)	0.109
<b>Mucosal irradiation</b>	<b>281(87.8%)</b>	<b>47(90.4%)</b>	<b>27(81.2%)</b>	<b>103 (88.8%)</b>	<b>104 (87.4%)</b>	0.670
Nasopharynx	209 (67.4%)	30(60.0%)	23(76.7%)	75 (66.4%)	81 (69.2%)	0.448
Oropharynx	271 (85.2%)	44(86.3%)	26(81.2%)	100 (86.2%)	101 (84.9%)	0.909
Hypopharynx	243 (76.9%)	40(78.4%)	24(75.0%)	84 (73.7%)	95 (79.8%)	0.712
Larynx	207 (65.9%)	35(68.6%)	14(43.7%)	70 (62%)	88 (74.6%)	0.008
Oral cavity	72 (23.8%)	15(31.2%)	5(16.7%)	33 (30%)	19 (16.5%)	0.046
Interruption ≥ 4 days	21 (6.5%)	4(7.5%)	3(9.1%)	6 (5.2%)	8 (6.7%)	0.856
<b>Chemotherapy</b>	<b>210 (65.4%)</b>	<b>46(86.8%)</b>	<b>26(78.8%)</b>	<b>65 (56.0%)</b>	<b>73 (61.3%)</b>	<.001
Neoadjuvant	33 (10.3%)	24(45.3%)	3(9.1%)	3 (2.6%)	3 (2.5%)	<.001
Concomitant	201 (62.6%)	42(79.2%)	25(76.8%)	64 (55.2%)	70 (58.8%)	0.007

35 patients for whom laterality of radiotherapy was missing.

Results presented as frequency and percentage (n%) or by median; mean +/- standard deviation.

**Supplementary Table 2:** Impact of neck dissection on grade III-IV acute and late toxicities in the subgroup of the 232 patients with bilateral nodal irradiation.

	No ND	Lymphadenectomy	Selective ND	Modified radical ND	Radical ND	p-value
<b>Acute toxicities</b>						
<i>Number of patients</i>	37	16	88	78	13	
Dysphagia	15(40.5%)	3(18.7%)	29(32.9%)	19(24.4%)	7 (53.8%)	0.111
Pain	8(21.6%)	1(6.2%)	13(14.9%)	14(17.9%)	5(38.5%)	0.190
<b>Late toxicities</b>						
<i>Number of patients</i>	37	15	88	74	13	
Dysphagia	5(13.5%)	0	6 (6.8%)	5 (6.8%)	6 (46.1%)	0.002
Fibrosis	0	0	8(9.1%)	3(4.0%)	5(38.5%)	0.001
Pain	2(5.4%)	0	2 (2.3%)	1 (1.3%)	2 (15.4%)	0.109



.....	No ND	53	38	23	12	7	3
- - -	Lymphadenectomy	33	29	23	17	12	8
- . -	Selective ND	116	104	86	61	49	39
- - -	Modified radical/radical ND	120	102	90	67	50	34

**Supplementary Figure 1:** Incidence of HNCUP specific death according to extent of ND.