Supplementary Table 1. The association between pre-diagnosis alcohol use and stage and grade of head and neck cancer overall and by subsite

	Head and neck cancer			Oral cancer			Oropharyngeal + hypopharyngeal cancer + Laryngeal cancer		
	No alcohol n (%)	Yes alcohol n (%)	P[a]	No alcohol n (%)	Yes alcohol n (%)	P[a]	No alcohol n (%)	Yes alcohol n (%)	P[a]
Overall Stage									
Stage 1, 2	115 (50.7)	185 (38.7)	0.003	90 (52.6)	141 (49.8)	0.56	25 (45.5)	43 (23.2)	0.001
Stage 3, 4	112 (49.3)	293 (61.3)		81 (47.4)	142 (50.2)		30 (54.5)	142 (76.8)	
T stage									
1	95 (40.2)	133 (27.0)	0.0002	68 (39.1)	88 (30.8)	0.14	27 (44.2)	44 (22.3)	0.001
2	74 (31.4)	143 (29.0)		54 (31.0)	87 (30.4)		20 (32.8)	55 (27.9)	
3	26 (11.0)	78 (15.8)		18 (10.3)	30 (10.5)		7 (11.5)	44 (22.3)	
4	41 (17.4)	139 (28.2)		34 (19.6)	81 (28.3)		7 (11.5)	54 (27.4)	
N stage									
0	154 (65.5)	262 (53.9)	0.02	120 (69.4)	190 (68.1)	0.63	34 (55.7)	69 (35.0)	0.006
1	19 (8.1)	47 (9.7)		9 (5.2)	23 (8.2)		10 (16.4)	24 (12.2)	
2	60 (25.5)	167 (34.4)		42 (24.3)	64 (22.9)		17 (27.9)	97 (49.2)	
3	2 (0.9)	10 (2.1)		21 (1.2)	2 (0.7)		0 (0.0)	7 (3.6)	
Grade									
Low	76 (35.2)	153 (34.6)	0.89	71 (42.8)	127 (47.2)	0.37	5 (10.2)	23 (14.0)	0.49
Moderate + High	140 (64.8)	289 (65.4)		95 (57.2)	142 (52.8)		44 (89.8)	141 (86.0)	

a. P-value was calculated using chi-squared test

Supplementary Table 2. The association between the stage of head and neck cancer and the treatment modality

Treatment modality	**Stage**		
	Stage 1, 2 n (%)	Stage 3, 4 n (%)	P[a]
Surgery			
No	49 (16.3)	164 (40.6)	<0.0001
Yes	251 (83.7)	240 (59.4)	
Radiation			
No	248 (84.4)	93 (23.5)	<0.0001
Yes	46 (15.6)	302 (76.5)	
Chemotherapy			
No	279 (94.3)	117 (29.4)	<0.0001
Yes	17 (5.7)	281 (70.6)	

a. P-value was calculated using chi-squared test

Supplementary Table 3. The association between pre-diagnosis alcohol use and combinations of ADH1B and ALDH2 genotypes and stage of head and neck cancer

	No alcohol	No alcohol	No alcohol	No alcohol	Yes alcohol	Yes alcohol	Yes alcohol	Yes alcohol	P[a]
	Group 1: Fast *ADH1B* (*2/*2) + Fast *ALDH2* (*1/*1) n (%)	Group 2: Fast *ADH1B* (*2/*2) + Slow *ALDH2* (*1/*2+*2/*2) n (%)	Group 3: Slow *ADH1B* (*1/*1+*1/*2) + Fast *ALDH2* (*1/*1) n (%)	Group 4: Slow *ADH1B* (*1/*1+*1/*2) + Slow *ALDH2* (*1/*2+*2/*2) n (%)	Group 1: Fast *ADH1B* (*2/*2) + Fast *ALDH2* (*1/*1) n (%)	Group 2: Fast *ADH1B* (*2/*2) + Slow *ALDH2* (*1/*2+*2/*2) n (%)	Group 3: Slow *ADH1B* (*1/*1+*1/*2) + Fast *ALDH2* (*1/*1) n (%)	Group 4: Slow *ADH1B* (*1/*1+*1/*2) + Slow *ALDH2* (*1/*2+*2/*2) n (%)	
Stage									
Stage 1, 2	24 (57.1)	43 (50.6)	13 (50.0)	31 (47.0)	56 (47.1)	28 (26.9)	42 (39.6)	52 (38.2)	0.006
Stage 3, 4	18 (42.9)	42 (49.4)	13 (50.0)	35 (53.0)	63 (52.9)	76 (73.1)	64 (60.4)	84 (61.8)	
T stage									
1+2	32 (74.4)	62 (68.1)	17 (65.4)	49 (73.1)	71 (59.2)	52 (48.1)	65 (58.6)	80 (57.1)	0.01
3+4	11 (25.6)	29 (31.9)	9 (34.6)	18 (26.9)	49 (40.8)	56 (51.9)	46 (41.4)	60 (42.9)	
N stage									
0	29 (67.4)	63 (69.2)	16 (64.0)	41 (61.2)	73 (62.4)	48 (44.4)	64 (58.7)	69 (50.0)	0.007
1+2+3	14 (32.6)	28 (30.8)	9 (36.0)	26 (38.8)	44 (37.6)	60 (55.6)	45 (41.3)	69 (50.0)	

a. P-value was calculated using chi-squared test