Supplementary information for:

Prognostic significance of serum free amino acids in head and neck cancers

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Table S1: Results of the univariate Cox regression overall survival analysis for clinicopathological parameters. Statistically significant values are written in bold.

	Confidence interval	P
Age (>Median)	0.9823 - 1.036	0.525
Sex (Male)	0.4438 - 4.495	0.559
Grade (High)	0.3252 - 2.352	0.791
Grade (Intermediate)	0.2279 - 1.451	0.241
Larynx	0.4249 - 1.198	0.201
Oral Cavity	0.8168 - 2.724	0.193
Hypopharynx	**1.72 - 5.18**	**>0.001**
Oropharynx	**0.337 - 0.9505**	**0.0314**
T 3,4 vs. T 1,2	**1.003 - 2.659**	**0.0486**
N 2,3 vs. N 0,1	**1.184 - 3.041**	**0.00776**
M1 vs. M0	0.4144 - 4.197	0.639
Treatment: Palliative	**3.552 - 11.83**	**>0.001**
Treatment: Primary Radio(chemo)therapy	**1.067 - 2.72**	**0.0258**
Treatment: Surgery	0.2681 - 1.279	0.179
Treatment: Surgery With Adjuvant Radio(chemo)therapy	**0.1457 - 0.5296**	**>0.001**

Table S2: Results of the univariate Cox regression overall survival analysis for serum amino acid levels. Statistically significant values are written in bold.

	Confidence interval	P
Aspartic Acid	0.5015 - 1.462	0.57
Glutamic Acid	0.4724 - 1.199	0.232
Asparagine	0.8609 - 2.187	0.183
Serine	0.938 - 2.603	0.0865
Glutamine	0.7799 - 2.11	0.327
Histidine	0.3877 - 1.019	0.0598
Glycine	0.7542 - 2	0.409
Threonine	0.3814 - 1.272	0.239
Citrulline	0.3892 - 1.054	0.0795
Arginine	0.7524 - 2.244	0.348
Alanine	**0.2928 - 0.8019**	**0.00482**
Tyrosine	0.5309 - 1.368	0.508
Cystine	**1.043 - 2.721**	**0.0331**
Valine	0.4348 - 1.108	0.126
Methionine	**0.2648 - 0.7114**	**>0.001**
Tryptophan	0.7276 - 2.047	0.45
Phenylalanine	0.779 - 2.135	0.323
Isoleucine	0.2994 - 1	0.0501
Leucine	0.4636 - 1.241	0.272
Lysine	0.7339 - 2.008	0.45
Proline	0.433 - 1.108	0.126

Table S3: Results of the multivariate Cox regression overall survival analysis for factors identified as significant in the univariate analyses. Statistically significant values are written in bold. Concordance index of this model was 0.757 (Standard error = 0.027); Likelihood ratio test = 62.4 (p > 0.001); Wald test = 61.79 (p > 0.001).

	Confidence interval	P
T 3,4 vs. T 1,2	0.9483 - 2.6843	0.0784
N 2,3 vs. N 0,1	0.9869 - 3.0374	0.0556
Hypopharynx	0.7103 - 2.6025	0.3538
Oropharynx	0.3910 - 1.3376	0.3017
Treatment: Palliative	**1.2499 - 10.5885**	**0.0178**
Treatment: Primary Radio(chemo)therapy	0.4655 - 2.8715	0.7545
Treatment: Surgery With Adjuvant Radio(chemo)therapy	0.1375 - 1.0338	0.0580
Alanine	0.4138 - 1.2467	0.2395
Cystine	0.6204 - 1.8679	0.7932
Methionine	**0.3056 - 0.9013**	**0.0195**

Table S4: Results of the univariate Cox regression relapse-free survival analysis for clinicopathological parameters.

	Confidence interval	P
Age (>Median)	0.9807 - 1.068	0.287
Sex (Male)	0.2188 - 11.9	0.639
Grade (High)	0.08681 - 1.538	0.170
Grade (Intermediate)	0.11508 - 1.323	0.131
Larynx	0.6918 - 3.094	0.319
Oral Cavity	**1.153 - 6.415**	**0.0223**
Hypopharynx	0.7505 - 5.472	0.163
Oropharynx	**0.06907 - 0.5768**	**0.00292**
T 3,4 vs. T 1,2	0.341 - 1.509	0.381
N 2,3 vs. N 0,1	0.3982 - 1.881	0.715
M1 vs. M0	0.1677 - 9.101	0.836
Treatment: Palliative	0.128 - 7.149	0.965
Treatment: Primary Radio(chemo)therapy	**1.17 - 5.359**	**0.0181**
Treatment: Surgery	0.1047 - 1.864	0.266
Treatment: Surgery With Adjuvant Radio(chemo)therapy	0.2305 - 1.194	0.124

Table S5: Results of the univariate Cox regression relapse-free survival analysis for serum amino acid levels. Statistically significant values are written in bold.

	Confidence interval	P
Aspartic Acid	0.2498 - 1.222	0.143
Glutamic Acid	0.3578 - 1.583	0.454
Asparagine	0.4556 - 2.079	0.944
Serine	0.5217 - 2.902	0.636
Glutamine	0.3749 - 1.678	0.544
Histidine	0.4971 - 3.028	0.657
Glycine	0.3953 - 2.039	0.797
Threonine	**0.04956 - 0.8813**	**0.033**
Citrulline	0.238 - 1.17	0.116
Arginine	0.2416 - 2.014	0.506
Alanine	0.2174 - 1.065	0.0711
Tyrosine	0.3283 - 1.459	0.334
Cystine	0.615 - 3.016	0.446
Valine	0.448 - 2.01	0.891
Methionine	**0.1726 - 0.8175**	**0.0136**
Tryptophan	0.6011 - 3.101	0.457
Phenylalanine	0.6757 - 3.314	0.32
Isoleucine	0.269 - 1.645	0.377
Leucine	0.4292 - 2.216	0.952
Lysine	0.5153 - 2.523	0.746
Proline	0.2581 - 1.162	0.117

Table S6: Results of the multivariate Cox regression relapse-free survival analysis for factors identified as significant in the univariate analyses. Concordance index of this model was 0.787 (Standard error = 0.043); Likelihood ratio test = 33.05 (p > 0.001); Wald test = 24.63 (p > 0.001).

	Confidence interval	P
Oral Cavity	**1.49124 - 14.7489**	**0.00820**
Oropharynx	**0.09951 - 0.9034**	**0.03232**
Treatment: Primary Radio(chemo)therapy	**1.89193 - 13.9992**	**0.00133**
Threonine	0.06630 - 1.2623	0.09892
Methionine	**0.19240 - 0.9941**	**0.04836**