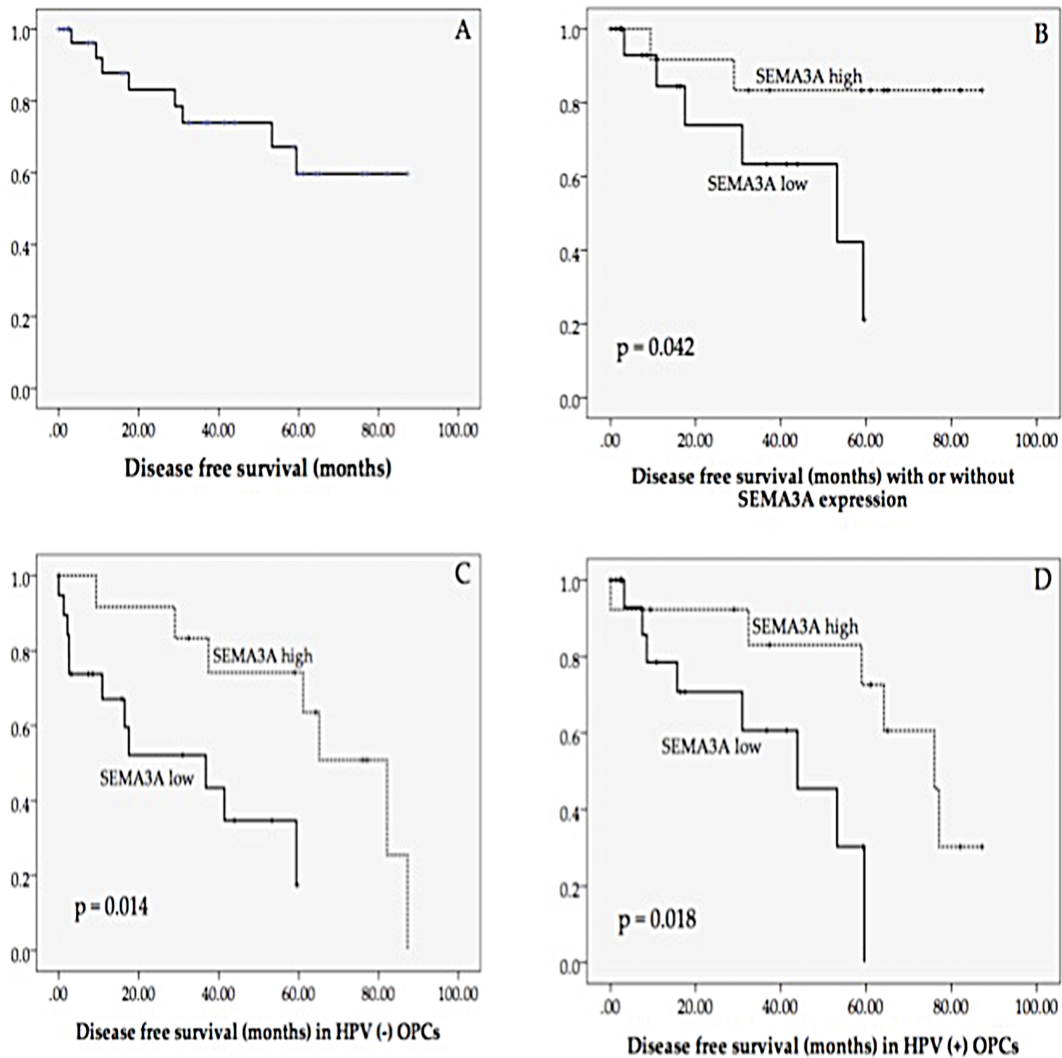# Supplementary materials
Supplemental Figure S1
Comparison of different Kaplan-Meier curves for disease free survival for patients grouped by immunohistochemistry levels of SEMA3A.

Supplemental Figure S1
(A). Kaplan-Meier curves for disease free survival (DFS) of the 32 OPC patients. (B). Kaplan-Meier curves for DFS for OPC patients with low and high levels of SEMA3A expression (P = 0.042). (C). Kaplan-Meier curves for DFS in patients who were HPV (+) with low and high levels of SEMA3A expression (P = 0.018). (D). Kaplan–Meier curves for DFS in patients who were HPV (-) with low and high levels of SEMA3A expression (P = 0.014).

Supplementary materials
Supplemental Table S1
Cox propotional hazard regression analysis of 32 OPC patients with overall survival

Variables	Univariate analysis		Multivariate analysis	
	HR (95% CI)	*p*	HR (95% CI)	*p*
Sex	1.379 (0.166-11.424)	0.76		NI
Age (years)	0.717 (0.143-3.588)	0.68		NI
Semaphorin 3A	0.192 (0.036-1.925)	0.05	0.307 (0.055-1.718)	0.179
Histological grade (poorly, moderately, well)	1.192 (0.504-2.815)	0.68		NI
Subsite (lateral, frontal, upper)	0.47 (0.072-3.054)	0.42		NI
TNM stage (I-II, III-IV)	1.696 (0.402-7.152)	0.47		NI
Tumor stage (T1-2, T3-4)	2.226 (0.549-9.024)	0.26		NI
Lymph node metastasis (negative, positive)	0.184 (0.036- 0.929)	0.04	0.275 (0.05-1.503)	0.136
HPV (negative, positive)	0.629 (0.15-2.640)	0.52		NI
Smoking	0.355 (0.067-1.881)	0.22		NI
Alcohol	1.776 (0.349-9.037)	0.48		NI

Factors with *p* value greater than 0.05 in the univariate models were not included (NI) in the multivariate analysis

P-value < 0.05 was considered statistically significant

Supplemental Table S1
A univariate Cox regression analysis did not show a significant association of age (≥50), sex, histological grade, subsite, tumor status, stage, HPV, smoking and drinking. Univariate Cox regression analysis showed that lymphonode metastasis and SEMA3A expression represented significant hazards.

Supplemental Table S2

Cox propotional hazard regression analysis of 32 OPC patients with disease free survival

Variables	Univariate analysis	
	HR (95% CI)	*p*
Sex	1.575 (0.191-12.959)	0.673
Age (years)	0.673 (0.135-3.366)	0.63
Semaphorin 3A	0.21 (0.41-1.078)	0.062
Histological grade (poorly, moderately, well)	1.223 (0.522-2.866)	0.643
Subsite (lateral, frontal, upper)	0.434 (0.064-2.963)	0.395
TNM stage (I-II, III-IV)	1.787 (0.425-7.504)	0.428
Tumor stage (T1-2, T3-4)	2.507 (0.615-10.228)	0.2
Lymph node metastasis (negative, positive)	0.147 (0.027- 0.792)	0.026
HPV (negative, positive)	0.635 (0.151-2.666)	0.535
Smoking	0.502 (0.108-2.329)	0.378
Alcohol	1.866 (0.366-9.498)	0.453

P-value < 0.05 was considered statistically significant

Supplemental Table S2

A univariate Cox regression analysis did not show a significant association of age (≥50), sex, SEMA3A, histological grade, subsite, tumor status, lymph node metastasis, stage, HPV, smoking and drinking.