

**S1 Table.** Association of the expression of EGFR ligands with clinicopathologic characteristics

Characteristic	No. (%)	HBEGF (+)		TGF (+)		Betacellulin (+)		EGF (+)	
		No. (%)	p-value	No. (%)	p-value	No. (%)	p-value	No. (%)	p-value
<b>Age (yr)</b>									
≤ 60	109 (32.9)	64 (58.7)	0.355	43 (39.4)	0.717	9 (8.3)	0.849	4 (3.7)	0.224
> 60	222 (67.1)	142 (64.0)		83 (37.4)		17 (7.7)		3 (1.4)	
<b>Sex</b>									
Male	184 (55.6)	115 (62.5)	0.912	68 (37.0)	0.642	11 (6.0)	0.156	2 (1.1)	0.248
Female	147 (44.4)	91 (61.9)		58 (39.5)		15 (10.2)		5 (3.4)	
<b>Location</b>									
Right sided	97 (29.3)	60 (61.9)	0.927	35 (36.1)	0.632	4 (4.1)	0.104	2 (2.1)	>0.999
Left sided	234 (70.7)	146 (62.4)		91 (38.9)		22 (9.4)		5 (2.1)	
<b>Depth of tumor (pT)</b>									
T1, T2	48 (14.5)	35 (72.9)	0.099	16 (33.3)	0.465	5 (10.4)	0.559	0	0.599
T3, T4	283 (85.5)	171 (60.4)		110 (38.9)		21 (7.4)		7 (2.5)	
<b>Differentiation</b>									
Low grade	300 (90.6)	196 (65.3)	<0.001	119 (39.7)	0.062	26 (8.7)	0.151	7 (2.3)	>0.999
High grade	31 (9.4)	10 (32.3)		7 (22.6)		0		0	
<b>Tumor border</b>									
Expanding	48 (14.5)	26 (54.2)	0.212	17 (35.4)	0.683	5 (10.4)	0.559	3 (6.3)	0.066
Infiltrative	283 (85.5)	180 (63.8)		109 (38.5)		21 (7.4)		4 (1.4)	
<b>Lymphatic invasion</b>									
Absent	141 (42.6)	83 (58.9)	0.276	54 (38.3)	0.940	11 (7.8)	0.975	2 (1.4)	0.703
Present	190 (57.4)	123 (64.7)		72 (37.9)		15 (7.9)		5 (2.6)	
<b>Vascular invasion</b>									
Absent	269 (81.3)	168 (62.5)	0.865	104 (38.7)	0.642	22 (8.2)	0.996	3 (1.1)	0.025
Present	62 (18.7)	38 (61.3)		22 (35.5)		4 (6.5)		4 (6.5)	

Neural invasion									
Absent	229 (69.2)	144 (62.9)	0.716	82 (36.2)	0.306	18 (7.9)	0.983	5 (2.2)	>0.999
Present	102 (30.8)	62 (60.8)		43 (42.2)		8 (8.0)		2 (2.0)	
pTNM stage									
I, II, III	271 (81.9)	170 (62.7)	0.693	106 (39.1)	0.404	20 (7.4)	0.439	5 (1.8)	0.615
IV	60 (18.1)	36 (60.0)		20 (33.3)		6 (10.0)		2 (3.3)	
MSI status (n=320)									
MSS/MSI-L	293 (91.6)	186 (63.5)	0.116	118 (40.3)	0.009	22 (7.5)	0.256	5 (1.7)	0.111
MSI-H	27 (8.4)	13 (48.1)		4 (14.8)		4 (14.8)		2 (7.4)	

HBEGF, heparin binding epidermal growth factor–like growth factor; TGF, transforming growth factor; EGF, epidermal growth factor; MSI, microsatellite instability; MSS, microsatellite stable; MSI-L, microsatellite instability–low; MSI-H, microsatellite instability–high.