Table 1. Subgroup analysis and meta analysis of 8 indicators in OS, CSS, and DFS.

	OS					CSS					DFS				
	N	HR(95% CI), *P*	I^2(%), *P*	Begg's *P*, Egger's *P*	*P*-reg	N	HR(95% CI), *P*	I^2(%), *P*	Begg's *P*, Egger's *P*	*P*-reg	N	HR(95% CI), *P*	I^2(%), *P*	Begg's *P*, Egger's *P*	*P*-reg
PNI															
Overall	11	1.51(1.36-1.68),<0.001	45.8, 0.048	0.036, 0.188											
Country															
China	4	1.45(1.27-1.64),<0.001	36.9, 0.190	0.497, 0.092	0.184										
Non-China	7	1.82(1.38-2.40),<0.001	51.4, 0.054	0.099, 0.006											
Sample size															
<255	7	1.69(1.19-2.40), 0.003	66.8, 0.006	0.099, 0.058	0.797										
≥255	4	1.52(1.34-1.72),<0.001	0.0, 0.949	0.174, 0.052											
Cut-off value															
<46	5	1.68(1.13-2.50), 0.010	59.5, 0.043	0.050, 0.432	0.774										
≥46	6	1.49(1.33-1.67),<0.001	39.9, 0.139	0.348, 0.288											
Treatment															
Surgery	7	1.46(1.20-1.78),<0.001	54.4, 0.041	0.752, 0.293	Ref										
Mixed	3	2.18(1.52-3.11),<0.001	0.0, 0.649	0.602, 0.448	0.139										
NR	1	1.50(1.16-1.93), NR	NR	NR	0.906										
Pathology															
SCC	9	1.56(1.39-1.76),<0.001	41.5, 0.091	0.061, 0.184	0.144										
Mixed	1	1.67(1.14-2.44), NR	NR	NR	0.231										
NR	1	1.09(0.80-1.49), NR	NR	NR	Ref										
Clinical stage															
0-III	5	1.62(1.41-1.86),<0.001	32.2, 0.207	0.050,<0.001	0.229										
0-IV	6	1.41(1.10-1.80), 0.006	52.4, 0.062	0.348, 0.687											
Follow-up															
<36	4	1.46(1.15-1.86), 0.002	53.4, 0.092	1.000, 0.523	0.962										
≥36	4	1.45(1.23-1.70),<0.001	46.1, 0.135	1.000, 0.801	Ref										
NR	3	2.26(1.63-3.14),<0.001	0.0, 0.988	0.602, 0.337	0.014										
Age															
<63.4	4	1.45(1.27-1.64),<0.001	36.9, 0.190	0.497, 0.092	Ref										
≥63.4	6	1.77(1.31-2.41),<0.001	55.0, 0.049	0.039, 0.016	0.270										
NR	1	2.21(1.28-3.82), NR	NR	NR	0.249										
Sex ratio															

	n	HR(95%CI), p	I^2, p	Egger, Begg	P	n	HR(95%CI), p	I^2, p	Egger, Begg	P	n	HR(95%CI), p	I^2, p	Egger, Begg	P
<4.75	5	1.46(1.29-1.66),<0.001	25.1, 0.254	0.624, 0.545	0.253										
≥4.75	6	1.84(1.34-2.53),<0.001	59.1, 0.032	0.091, 0.011											
NLR															
Overall	34	1.43(1.30-1.58),<0.001	61.7,<0.001	0.113, 0.428		8	1.21(1.04-1.41), 0.011	43.4, 0.089	0.621, 0.695		7	1.39(1.10-1.75), 0.005	60.9, 0.018	0.453, 0.344	
Country															
China	23	1.43(1.30-1.57),<0.001	51.5, 0.002	0.107, 0.399	0.883	4	1.15(0.97-1.36), 0.117	38.8, 0.179	0.174, 0.971	0.436	5	1.22(1.05-1.42), 0.010	0.0, 0.514	0.050, 0.062	0.018
Non-China	11	1.45(1.06-1.98), 0.022	75.5,<0.001	0.484, 0.513		4	1.42(1.06-1.90), 0.020	49.8, 0.113	0.497, 0.376		2	2.43(1.69-3.49),<0.001	0.0, 0.604	NR	
Sample size															
<297	18	1.45(1.19-1.76),<0.001	65.6,<0.001	0.088, 0.192	0.965	2	0.95(0.59-1.54), 0.848	43.6, 0.183	NR	0.395	4	1.56(0.95-2.58), 0.080	78.9, 0.003	0.174, 0.316	0.553
≥297	15	1.42(1.27-1.58),<0.001	60.2, 0.001	0.347, 0.809	Ref	6	1.24(1.06-1.45), 0.006	47.5, 0.090	0.091, 0.138		3	1.29(1.08-1.54), 0.005	0.0, 0.799	0.117, 0.089	
NR	1	1.84(1.21-2.83), NR	NR	NR	0.466	NR	NR	NR	NR		NR	NR	NR	NR	
Cut-off value															
<2.5	16	1.38(1.20-1.58),<0.001	56.9, 0.003	0.072, 0.082	0.563	3	1.43(1.04-1.97), 0.030	66.5, 0.051	0.602, 0.268	0.493	4	1.34(0.94-1.91), 0.103	69.2, 0.021	1.000, 0.704	0.763
≥2.5	18	1.48(1.28-1.71),<0.001	62.5,<0.001	0.733, 0.623		5	1.16(0.98-1.37), 0.084	21.9, 0.275	0.142, 0.737		3	1.47(1.03-2.11), 0.034	61.8, 0.073	0.117, 0.377	
Treatment															
Surgery	24	1.32(1.19-1.48),<0.001	56.9,<0.001	0.215, 0.290	Ref	8	1.21(1.04-1.41), 0.010	43.4, 0.089	0.621, 0.695		7	1.39(1.10-1.75), 0.005	60.9, 0.018	0.453, 0.344	
CRT	3	1.79(1.51-2.13),<0.001	0.0, 0.704	0.602, 0.960	0.090	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Mixed	7	1.73(1.51-1.99),<0.001	39.3, 0.130	0.176, 0.779	0.062	NR	NR	NR	NR		NR	NR	NR	NR	
Pathology															
SCC	27	1.42(1.28-1.57),<0.001	56.0,<0.001	0.084, 0.517	0.683	8	1.21(1.04-1.41), 0.011	43.4, 0.089	0.621, 0.695		5	1.22(1.05-1.42), 0.010	0.0, 0.514	0.050, 0.062	0.018
Mixed	4	1.75(0.84-3.66), 0.137	87.9,<0.001	1.000, 0.661	0.420	NR	NR	NR	NR	NR	2	2.43(1.69-3.49),<0.001	0.0, 0.604	NR	
NR	3	1.36(1.13-1.65), 0.002	0.0, 0.509	0.602, 0.452	Ref	NR	NR	NR	NR		NR	NR	NR	NR	
Clinical stage															
0-III	22	1.31(1.22-1.41),<0.001	43.0, 0.018	0.019, 0.039	0.262	6	1.12(0.96-1.32), 0.159	30.4, 0.207	0.573, 0.701	0.083	5	1.35(1.15-1.57),<0.001	36.4, 0.179	0.624, 0.229	0.963
0-IV	12	1.56(1.28-1.89),<0.001	71.1,<0.001	0.784, 0.600		2	1.80(1.24-2.60), 0.002	0.0, 0.907	0.317, NR		2	1.40(0.55-3.57), 0.486	89.0, 0.003	0.317, NR	
Follow-up															
<37	12	1.60(1.34-1.91),<0.001	60.5, 0.003	0.493, 0.485	0.079	2	1.80(1.24-2.60), 0.002	0.0, 0.907	0.317, NR	0.105	2	1.40(0.55-3.57), 0.486	89.0, 0.003	0.317, NR	0.963
≥37	10	1.26(1.15-1.38),<0.001	45.4, 0.058	0.531, 0.844	Ref	3	1.11(0.73-1.69), 0.623	67.1, 0.048	0.602, 0.534	0.740	5	1.35(1.15-1.57),<0.001	36.4, 0.179	0.624, 0.229	
NR	12	1.45(1.20-1.76),<0.001	64.8, 0.001	0.217, 0.832	0.307	3	1.06(0.84-1.34), 0.614	0.0, 0.712	0.117, 0.166	Ref	NR	NR	NR	NR	
Age															
<61.1	15	1.37(1.22-1.53),<0.001	53.9, 0.007	0.083, 0.446	Ref	3	1.28(1.02-1.61), 0.033	40.9, 0.184	0.602, 0.932		4	1.28(1.09-1.50), 0.003	0.0, 0.919	0.174, 0.075	Ref
≥61.1	11	1.45(1.16-1.82), 0.001	70.3,<0.001	0.697, 0.636	0.706	NR	NR	NR	NR	0.759	2	1.40(0.55-3.57), 0.486	89.0, 0.003	0.317, NR	0.775
NR	8	1.56(1.16-2.10), 0.003	62.9, 0.009	0.805, 0.875	0.461	5	1.20(0.88-1.62), 0.246	53.4, 0.072	1.000, 0.651		1	2.76(1.50-5.03), NR	NR	NR	0.152
Sex ratio															
<5.12	17	1.38(1.22-1.56),<0.001	62.3,<0.001	0.510, 0.856	0.458	7	1.14(0.96-1.34), 0.129	35.6, 0.157	0.453, 0.417	0.287	6	1.30(1.26-1.50),<0.001	48.4, 0.085	0.573, 0.960	0.123

≥5.12	17	1.52(1.27-1.81),<0.001	62.8,<0.001	0.021, 0.286		1	1.59(1.13-2.24), NR	NR	NR	1	2.76(1.50-5.03), NR	NR	NR	
PLR														
Overall	19	1.26(1.18-1.35),<0.001	29.8, 0.108	0.054, 0.108						5	1.30(1.12-1.51),<0.001	33.0, 0.202	0.142, 0.472	
Country														
China	15	1.26(1.17-1.35),<0.001	42.1, 0.043	0.125, 0.121	0.571					5	1.30(1.12-1.51),<0.001	33.0, 0.202	0.142, 0.472	NR
Non-China	4	1.40(1.07-1.83), 0.016	0.0, 0.854	1.000, 0.771						NR	NR	NR	NR	
Sample size														
<303	10	1.38(1.18-1.62),<0.001	25.5, 0.209	0.245, 0.157	0.341					2	0.99(0.71-1.39), 0.958	0.0, 0.682	0.602, 0.463	0.174
≥303	9	1.24(1.15-1.34),<0.001	33.7, 0.148	0.297, 0.206						3	1.39(1.18-1.64),<0.001	24.5, 0.266	NR	
Cut-off value														
<143	10	1.24(1.14-1.35),<0.001	11.7, 0.335	0.006, 0.001	0.567					3	1.39(1.18-1.64),<0.001	24.5, 0.266	NR	0.174
≥143	9	1.33(1.17-1.52),<0.001	44.7, 0.071	1.000, 0.858						2	0.99(0.71-1.39), 0.958	0.0, 0.682	0.602, 0.463	
Treatment														
Surgery	15	1.24(1.16-1.33),<0.001	24.2, 0.186	0.458, 0.553	0.079					5	1.30(1.12-1.51),<0.001	33.0, 0.202	0.142, 0.472	NR
Mixed	4	1.61(1.26-2.06),<0.001	1.6, 0.384	0.174, 0.086						NR	NR	NR	NR	
Pathology														
SCC	17	1.27(1.19-1.37),<0.001	33.2, 0.091	0.070, 0.122	0.432					5	1.30(1.12-1.51),<0.001	33.0, 0.202	0.142, 0.472	
Mixed	1	1.55(0.95-2.59), NR	NR	NR	0.356					NR	NR	NR	NR	NR
NR	1	1.12(0.87-1.43), NR	NR	NR	Ref					NR	NR	NR	NR	
Clinical stage														
0-III	15	1.27(1.18-1.36),<0.001	34.7, 0.091	0.033, 0.039	0.733					4	1.34(1.15-1.57),<0.001	37.6, 0.187	0.497, 0.709	0.461
0-IV	4	1.21(0.94-1.57), 0.139	24.5, 0.265	0.497, 0.205						1	1.05(0.69-1.60), NR	NR	NR	
Follow-up														
<39	4	1.17(1.01-1.36), 0.041	18.8, 0.296	0.497, 0.311	Ref					1	1.05(0.69-1.60), NR	NR	NR	0.461
≥39	8	1.19(1.09-1.30),<0.001	0.0, 0.974	0.458, 0.520	0.855					4	1.34(1.15-1.57),<0.001	37.6, 0.187	0.497, 0.709	
NR	7	1.71(1.46-2.02),<0.001	0.0, 0.682	0.293, 0.441	0.004					NR	NR	NR	NR	
Age														
<61.2	12	1.26(1.17-1.35),<0.001	41.5, 0.065	0.100, 0.097	Ref					4	1.34(1.15-1.57),<0.001	37.6, 0.187	0.497, 0.709	0.461
≥61.2	6	1.33(1.10-1.61), 0.003	21.9, 0.269	0.348, 0.470	0.698					1	1.05(0.69-1.60), NR	NR	NR	
NR	1	1.27(0.76-2.12), NR	NR	NR	0.994					NR	NR	NR	NR	
Sex ratio														
<4.55	8	1.22(1.12-1.33),<0.001	0.0, 0.863	1.000, 0.810	0.265					4	1.34(1.15-1.57),<0.001	37.6, 0.187	0.497, 0.709	0.461
≥4.55	11	1.41(1.17-1.69),<0.001	51.4, 0.024	0.102, 0.213						1	1.05(0.69-1.60), NR	NR	NR	
LMR														
Overall	13	1.37(1.14-1.65), 0.001	84.9,<0.001	0.028, 0.167						6	1.08(0.85-1.39), 0.522	79.8,<0.001	0.573, 0.838	

Country											
China	12	1.35(1.11-1.63), 0.002	85.7,<0.001	0.028, 0.229	0.525	6	1.08(0.85-1.39), 0.522	79.8,<0.001	0.573, 0.838	NR
Non-China	1	1.87(1.09-3.23), NR	NR	NR		NR	NR	NR	NR	
Sample size											
<280	7	1.86(1.36-2.55),<0.001	75.4,<0.001	0.881, 0.609	0.006	3	1.44(1.19-1.76),<0.001	0.0, 0.686	0.117, 0.290	0.085
≥280	6	1.09(0.97-1.22), 0.168	54.1, 0.053	0.348, 0.357		3	0.81(0.54-1.20), 0.296	87.0,<0.001	0.117, 0.013	
Cut-off value											
<3.57	6	1.65(1.11-2.47), 0.014	91.1,<0.001	0.851, 0.191	0.174	4	1.18(1.08-1.29),<0.001	49.5, 0.115	0.042, 0.025	0.034
≥3.57	7	1.17(0.97-1.42), 0.110	71.1, 0.002	0.293, 0.627		2	0.65(0.38-1.11), 0.116	73.7, 0.051	NR	
Treatment											
Surgery	9	1.20(1.02-1.41), 0.033	62.2, 0.007	0.144, 0.496	Ref	4	1.00(0.61-1.62), 0.984	86.3,<0.001	1.000, 0.995	
CCRT	1	3.60(2.66-4.88), NR	NR	NR	0.006	NR	NR	NR	NR	0.651
Mixed	3	1.36(1.01-1.83), 0.045	73.1, 0.024	0.117, 0.179	0.539	2	1.14(1.04-1.25), 0.005	12.4, 0.285	NR	
Pathology											
SCC	13	1.37(1.14-1.65), 0.001	84.9,<0.001	0.028, 0.167	NR	6	1.08(0.85-1.39), 0.522	79.8,<0.001	0.573, 0.838	NR
Mixed	NR	NR	NR	NR		NR	NR	NR	NR	
Clinical stage											
0-III	11	1.46(1.20-1.77),<0.001	84.7,<0.001	0.010, 0.055	0.176	4	1.15(0.92-1.45), 0.219	73.5, 0.010	0.174, 0.779	0.484
0-IV	2	0.93(0.39-2.21), 0.875	90.2, 0.001	0.317, NR		2	0.84(0.28-2.54), 0.754	92.2,<0.001	0.317, NR	
Follow-up											
<39	4	1.67(0.77-3.65), 0.198	94.3,<0.001	1.000, 0.505	0.429	2	0.89(0.26-3.02), 0.848	93.5,<0.001	0.317, NR	Ref
≥39	7	1.20(1.09-1.32),<0.001	0.0, 0.524	0.004, 0.002	0.891	3	1.15(0.79-1.66), 0.466	78.2, 0.010	0.117, 0.295	0.661
NR	2	1.12(1.02-1.23), 0.014	0.0, 0.515	0.317, NR	Ref	1	1.12(1.02-1.24), NR	NR	NR	0.767
Age											
<61.5	7	1.16(1.08-1.24),<0.001	12.9, 0.331	0.024, 0.044	Ref	4	1.17(0.92-1.50), 0.208	75.0, 0.007	0.174, 0.723	0.104
≥61.5	4	1.59(0.67-3.93), 0.312	94.3,<0.001	0.497, 0.692	0.373	1	0.47(0.28-0.78), NR	NR	NR	Ref
NR	2	1.46(1.12-1.90), 0.005	5.1, 0.305	0.317, NR	0.544	1	1.33(0.99-1.79), NR	NR	NR	0.119
Sex ratio											
<4.32	7	1.21(1.10-1.33),<0.001	21.5, 0.266	0.004, 0.005	0.575	3	1.15(0.79-1.66), 0466	78.2, 0.010	0.117, 0.295	0.708
≥4.32	6	1.50(0.91-2.46), 0.109	93.1,<0.001	0.851, 0.462		3	0.99(0.60-1.65), 0.969	87.1,<0.001	0.602, 0.808	
SII											
Overall	7	1.46(1.30-1.65),<0.001	41.0, 0.118	0.099, 0.113						
Country											
China	6	1.53(1.27-1.85),<0.001	50.5, 0.073	0.091, 0.082	0.890					
Non-China	1	1.65(0.74-3.96), NR	NR	NR						

Subgroup	N	HR(95%CI), p	I², p	Begg, Egger	p	N	HR(95%CI), p	I², p	Begg, Egger	p	N	HR(95%CI), p	I², p	Begg, Egger	p
Sample size															
<298	3	2.31(1.61-3.33),<0.001	0.0, 0.655	0.602, 0.400	0.047										
≥298	4	1.38(1.22-1.57),<0.001	0.0, 0.481	0.497, 0.490											
Cut-off value															
<410	3	1.31(1.11-1.54), 0.001	0.0, 0.372	0.117, 0.052	0.140										
≥410	4	1.67(1.40-1.99),<0.001	30.6, 0.229	0.497, 0.595											
Treatment															
Surgery	6	1.45(1.28-1.64),<0.001	45.0, 0.106	0.188, 0.204	0.428										
CRT	1	2.29(0.98-5.30), NR	NR	NR											
Pathology															
SCC	6	1.53(1.27-1.85),<0.001	50.5, 0.073	0.091, 0.082	0.890										
Mixed	1	1.65(0.74-3.96), NR	NR	NR											
Clinical stage															
0-III	5	1.40(1.23-1.59),<0.001	0.0, 0.435	0.327, 0.181	0.068										
0-IV	2	2.32(1.55-3.48),<0.001	0.0, 0.358	0.317, NR											
Follow-up															
<36	1	2.29(0.98-5.30), NR	NR	NR	0.469										
≥36	4	1.54(1.20-1.96), 0,001	66.6, 0.029	0.174, 0.098	0.908										
NR	2	1.46(1.08-1.98), 0.013	0.0, 0.771	0.317, NR	Ref										
Age															
<63.0	3	1.37(1.19-1.58),<0.001	16.6, 0.301	0.602, 0.607	Ref										
≥63.0	2	2.32(1.55-3.48),<0.001	0.0, 0.358	0.317, NR	0.084										
NR	2	1.53(1.13-2.06), 0.006	0.0, 0.319	0.317, NR	0.580										
Sex ratio															
<4.55	3	1.40(1.20-1.64),<0.001	46.1, 0.156	0.602, 0.475	0.646										
≥4.55	4	1.55(1.29-1.87),<0.001	48.0, 0.123	0.174, 0.468											
GPS															
Overall	15	2.35(1.99-2.76),<0.001	36.5, 0.078	0.729, 0.838		5	1.64(1.33-1.94),<0.001	45.5, 0.119	0.624, 0.905		5	2.44(1.28-4.67), 0.007	57.5, 0.052	1.000, 0.751	
Country															
China	4	2.23(1.57-3.17),<0.001	7.5, 0.356	0.497, 0.323	0.952	4	1.66(1.48-1.87),<0.001	47.4, 0.812	0.734, 0432	0.246	1	2.75(0.37-20.31), NR	NR	NR	0.931
Non-China	11	2.38(1.98-2.86),<0.001	46.5, 0.044	0.484, 0.699		1	2.53(1.49-4.28), NR	NR	NR		4	2.43(1.17-5.06), 0.017	68.0, 0.025	0.497, 0.781	
Sample size															
<237	9	2.47(1.98-3.07),<0.001	48.5, 0.050	0.835, 0.944	0.653	1	2.53(1.49-4.28), NR	NR	NR	0.246	3	3.11(2.03-4.78),<0.001	0.0, 0.399	0.602, 0.499	0.108
≥237	6	2.21(1.73-2.82),<0.001	17.5, 0.300	0.851, 0.814		4	1.66(1.48-1.87),<0.001	47.4, 0.812	0.734, 0432		2	1.06(0.53-2.14), 0.867	0.0, 0.320	NR	
Cut-off value															

Supplemental material

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	N	HR (95%CI), p	I², Ph	Egger, Begg	Meta-reg	N	HR (95%CI), p	I², Ph	Egger, Begg	Meta-reg	N	HR (95%CI), p	I², Ph	Egger, Begg	Meta-reg
1-2 VS 0	7	2.49(1.95-3.18),<0.001	39.0, 0.132	0.293, 0.232	0.821	2	1.48(1.25-1.77),<0.001	0.0, 0.801	NR	0.169	1	4.92(2.12-11.64), NR	NR	NR	0.303
2 VS 0	8	2.24(1.80-2.78),<0.001	40.6, 0.108	0.805, 0.553		3	1.89(1.62-2.22),<0.001	42.5, 0.829	1.000, 0.861		4	1.95(1.30-2.93), 0.001	47.5, 0.126	0.497, 0.866	
Treatment															
Surgery	8	2.16(1.73-2.70),<0.001	52.2, 0.041	0.621, 0.575	Ref	5	1.64(1.33-1.94),<0.001	45.5, 0.119	0.624, 0.905		2	1.06(0.53-2.14), 0.867	0.0, 0.320	0.317, NR	Ref
CRT	2	2.81(1.37-5.76), 0..005	76.1, 0.041	NR	0.449	NR	NR	NR	NR	NR	1	2.53(1.49-4.28), NR	NR	NR	0.192
Mixed	5	2.42(1.73-3.73),<0.001	0.0, 0.786	0.624, 0.364	0.730	NR	NR	NR	NR		2	4.72(2.24-9.95),<0.001	0.0, 0.843	NR	0.104
Pathology															
SCC	5	2.17(1.59-2.96),<0.001	40.6, 0.151	0.624, 0.620	0.706	5	1.64(1.33-1.94),<0.001	45.5, 0.119	0.624, 0.905		2	2.54(1.53-4.23),<0.001	0.0, 0.936	NR	0.945
Mixed	8	2.65(2.12-3.31),<0.001	44.3, 0.083	0.621, 0.847	0.342	NR	NR	NR	NR	NR	3	2.50(0.74-8.47), 0.141	78.1, 0.010	0.602, 0.680	
NR	2	1.89(1.31-2.74), 0.001	0.0, 0.786	NR	Ref	NR	NR	NR	NR		NR	NR	NR	NR	
Clinical stage															
0-III	4	2.16(1.63-2.85),<0.001	0.0, 0.511	0.174, 0.201	0.741	4	1.66(1.48-1.87),<0.001	47.4, 0.812	0.734, 0432	0.246	NR	NR	NR	NR	NR
0-IV	11	2.45(2.00-3.00),<0.001	47.9, 0.038	0.938, 0.933		1	2.53(1.49-4.28), NR	NR	NR		5	2.44(1.28-4.67), 0.007	57.5, 0.052	1.000, 0.751	
Follow-up															
<40	5	3.30(2.16-5.05),<0.001	16.0, 0.312	0.624, 0.701	0.027	1	1.63(1.16-2.29), NR	NR	NR	0.567	2	4.72(2.24-9.95),<0.001	0.0, 0.843	NR	0.104
≥40	4	1.56(1.11-2.20), 0.011	21.0, 0.284	0.497, 0.860	Ref	3	1.73(1.53-1.97),<0.001	69.2, 0.889	1.000, 0.731	0.416	2	1.06(0.53-2.14), 0.867	0.0, 0.320	0.317, NR	Ref
NR	6	2.51(2.04-3.08),<0.001	3.8, 0.392	0.851, 0.847	0.052	1	1.18(0.64-2.17), NR	NR	NR	Ref	1	2.53(1.49-4.28), NR	NR	NR	0.192
Age															
<62.1	5	2.15(1.66-2.78),<0.001	0.0, 0.490	0.050, 0.074	0.821	4	1.72(1.53-1.94),<0.001	54.6, 0.831	1.000, 0.720		1	2.75(0.37-20.31), NR	NR	NR	0.931
≥62.1	8	2.46(1.65-3.68),<0.001	59.6, 0.015	0.805, 0.690	0.632	NR	NR	NR	NR	0.369	4	2.43(1.17-5.06), 0.017	68.0, 0.025	0.497, 0.781	
NR	2	2.03(1.15-3.58), 0.014	0.0, 0.972	0.317, NR	Ref	1	1.18(0.64-2.17), NR	NR	NR		NR	NR	NR	NR	
Sex ratio															
<5.48	8	2.51(1.70-3.70),<0.001	51.9, 0.042	0.322, 0.602	0.690	1	1.63(1.16-2.29), NR	NR	NR	0.893	3	2.23(0.64-7.81), 0.211	76.3, 0.015	0.602, 0.826	0.724
≥5.48	7	2.25(1.80-2.82),<0.001	17.0, 0.300	0.881, 0.572		4	1.71(1.51-1.93),<0.001	62.3, 0.852	0.734, 0.954		2	2.66(1.62-4.37),<0.001	0.0, 0.560	0.317, NR	
mGPS															
Overall	14	1.69(1.49-1.92),<0.001	48.4, 0.022	0.702, 0.354											
Country															
China	8	1.90(1.47-2.46),<0.001	63.2, 0.008	0.083, 0.107	0.370										
Non-China	6	1.52(1.12-2.06), 0.007	10.9, 0.346	0.348, 0.795											
Sample size															
<212	6	2.50(1.91-3.28),<0.001	0.0, 0.652	0.348, 0.249	0.014										
≥212	8	1.52(1.31-1.75),<0.001	40.1, 0.111	0.805, 0.893											
Cut-off value															
1-2 VS 0	9	1.56(1.35-1.81),<0.001	4.7, 0.077	1.000, 0.736	0.092										
2 VS 0	5	2.23(1.70-2.92),<0.001	31.5, 0.212	0.624, 0.943											

Subgroup	n	HR(95%CI), p	I², p	Begg's, Egger's	p
Treatment					
Surgery	8	1.40(1.17-1.68),<0.001	31.2, 0.179	0.805, 0.577	Ref
RT	2	2.12(1.26-3.57), 0.005	73.3, 0.053	NR	0.138
Mixed	4	2.56(1.81-3.62),<0.001	0.0, 0.824	1.000, 0.888	0.030
Pathology					
SCC	11	1.88(1.48-2.40),<0.001	56.7, 0.010	0.815, 0.222	0.383
AD	1	1.24(0.69-2.22), NR	NR	NR	0.932
Mixed	1	1.17(0.53-2.60), NR	NR	NR	Ref
NR	1	1.82(1.17-2.83), NR	NR	NR	0.502
Clinical stage					
0-III	9	1.64(1.26-2.13),<0.001	50.9, 0.038	0.532, 0.227	0.314
0-IV	5	1.89(1.56-2.28),<0.001	38.7, 0.163	1.000, 0.475	
Follow-up					
<39	4	1.56(1.28-1.91),<0.001	0.0, 0.533	0.497, 0.066	Ref
≥39	6	1.64(1.18-2.26), 0.003	54.2, 0.053	0.188, 0.166	0.714
NR	4	2.66(1.98-3.59),<0.001	0.0, 0.783	0.497, 0.550	0.026
Age					
<61.7	8	1.90(1.47-2.46),<0.001	63.2, 0.008	0.083, 0.107	0.370
≥61.7	6	1.52(1.12-2.06), 0.007	10.9, 0.346	0.348, 0.795	
Sex ratio					
<4.91	7	1.77(1.32-2.38),<0.001	64.0, 0.011	0.652, 0.409	0.930
≥4.91	7	1.81(1.44-2.29),<0.001	25.4, 0.235	0.652, 0.680	
CAR					
Overall	10	1.84(1.60-2.10),<0.001	41.8, 0.079	0.531, 0.809	
Country					
China	5	1.90(1.50-2.41),<0.001	55.1, 0.063	1.000, 0.692	0.415
Non-China	4	1.58(1.13-2.20), 0.008	40.9, 0.166	0.497, 0.377	Ref
NR	1	2.46(1.18-5.13), NR	NR	NR	0.360
Sample size					
<283	5	2.06(1.59-2.66),<0.001	0.0, 0.585	0.142, 0.143	0.396
≥283	4	1.71(1.26-2.31), 0.001	65.4, 0.021	0.174, 0.411	Ref
NR	1	2.46(1.18-5.13), NR	NR	NR	0.406
Cut-off value					
<0.13	4	1.63(1.35-1.96),<0.001	0.0, 0.443	0.174, 0.185	0.490
≥0.13	5	2.19(1.78-2.69),<0.001	43.2, 0.133	0.142, 0.271	0.230

NR	1	1.15(0.56-2.70), NR	NR	NR	Ref
Treatment					
Surgery	4	1.79(1.28-2.50), 0.001	62.4, 0.047	0.497, 0.432	0.963
RT	1	2.46(1.18-5.13), NR	NR	NR	0.516
Mixed	5	1.71(1.39-2.11), <0.001	36.8, 0.176	1.000, 0.632	Ref
Pathology					
SCC	6	1.70(1.44-2.01), <0.001	21.2, 0.274	0.851, 0.586	0.535
Mixed	2	1.38(0.63-3.03), 0.427	67.2, 0.081	NR	Ref
NR	2	2.44(1.86-3.20), <0.001	0.0, 0.981	NR	0.134
Clinical stage					
0-III	5	2.01(1.69-2.39), <0.001	33.5, 0.198	0.624, 0.603	0.230
0-IV	4	1.50(1.19-1.90), 0.001	39.4, 0.175	1.000, 0.791	Ref
NR	1	2.46(1.18-5.13), NR	NR	NR	0.332
Follow-up					
<40	2	1.53(1.25-1.89), <0.001	0.0, 0.390	0.317, NR	Ref
≥40	2	1.56(0.58-4.16), 0.377	84.7, 0.010	0.317, NR	0.405
NR	6	2.10(1.65-2.68), 0.001	0.0, 0.693	0.348, 0.261	0.213
Age					
<62.2	5	1.90(1.50-2.41), <0.001	55.1, 0.063	1.000, 0.692	0.415
≥62.2	4	1.58(1.13-2.20), 0.008	40.9, 0.166	0.497, 0.377	Ref
NR	1	2.46(1.18-5.13), NR	NR	NR	0.360
Sex ratio					
<5.5	4	1.53(1.26-1.85), <0.001	32.8, 0.216	0.497, 0.875	Ref
≥5.5	5	2.21(1.81-2.70), <0.001	0.0, 0.471	0.014, 0.048	0.045
NR	1	2.46(1.18-5.13), NR	NR	NR	0.285

Abbreviations: OS, overall survival; CSS, cancer-specific survival; DFS, disease-free survival; EC, esophageal carcinoma; NLR, neutrophil-to-lymphocyte ratio; PLR, platelet-to-lymphocyte ratio; LMR, lymphocyte-to-monocyte ratio; CAR, c-reactive protein-to-albumin ratio; SII, systemic inflammation index; PNI, prognostic nutritional index; GPS, Glasgow Prognostic Score; mGPS, modified Glasgow Prognostic Score; Ref, reference; P-reg, the P-value of meta regression; NR, not reported.