

Supplementary Table 4 Univariate and Multivariable Cox regression analysis for OS.

Characteristics	Univariate analysis [#]		Multivariate analysis	
	HR, 95% CI	P-value	HR, 95%CI	P-value
Age (≥ 65 vs < 65 , years)	2.311 (0.860-6.206)	0.097	-	
Gender (Male vs Female)	0.621 (0.226-1.710)	0.356	-	
BMI (≥ 24 vs < 24 , kg/m ²)	1.327 (0.460-3.823)	0.601	-	
Tumor Max Size (≥ 4.6 vs < 4.6 , cm)	1.711 (0.622-4.707)	0.299	-	
Tumor Location				
Upper	1 (Ref.)			
Middle	0.426 (0.088-2.049)	0.426	-	
Lower	0.631 (0.221-1.801)	0.390	-	
Tumor Differentiation (Poor vs High/Moderate)	3.354 (0.729-15.437)	0.120		
Lauren Classification				
Intestinal	1 (Ref.)			
Diffuse	3.912 (0.887-17.255)	0.072	-	
Mix	-	-		
pTNM Stage (IV vs I/II/III)	5.801 (2.157-15.599)	< 0.001	6.213 (2.275-16.966)	< 0.001
Lymphatic Vessel Invasive (Positive vs Negative)	0.943 (0.328-2.716)	0.914	-	
Vascular Invasive (Positive vs Negative)	1.925 (0.699-5.300)	0.205	-	
Nerve Invasive (Positive vs Negative)	0.974 (0.891-1.066)	0.572	-	
HER2 Status (3+ vs 0/1+/2+)	0.932 (0.212-4.105)	0.926	-	
PD-L1 Status (High vs Low)	1.645 (0.617-4.384)	0.320	-	
<i>Malassezia globosa</i> (High vs Low)	2.830 (1.061-7.554)	0.038	3.080 (1.140-8.323)	0.027
Postoperative Treatment				
None	-	-		
Chemotherapy	0.491 (0.178-1.351)	0.168	-	
Chemotherapy+Anti-PD-1 Immunotherapy	1 (Ref.)			

[#]The variables with P<0.05 were included in multivariate analysis

*P<0.05 was considered significant. HR: Hazard Ratio, CI: Confidence Interval.