

Figure S1. Three-year overall survival curve according to laryngeal preservation. Survival curve of patients after surgery for cervical esophageal squamous cell carcinoma according to laryngeal preservation (n=48). Data were analyzed using a log-rank test. *P<0.05.

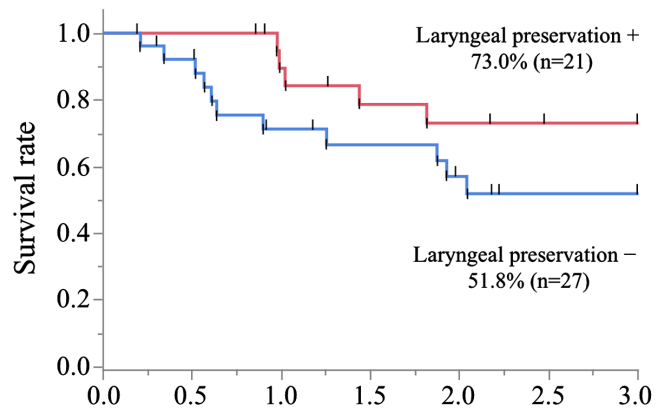


Figure S2. Three-year overall survival curve according to initial treatment. Survival curve of patients with cervical esophageal squamous cell carcinoma according to initial treatment (n=69). Data were analyzed using a log-rank test. *P<0.05.

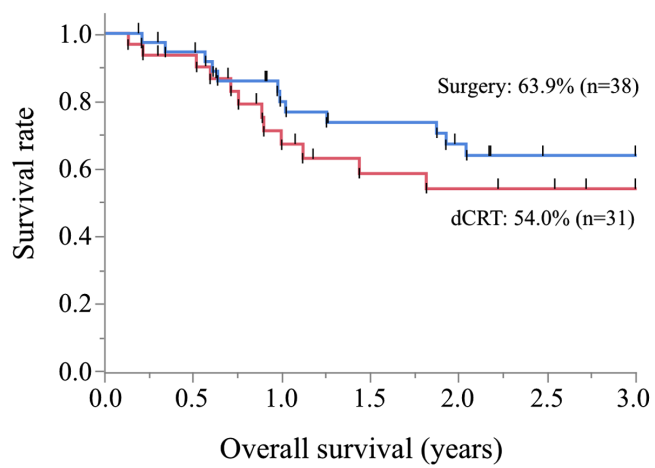


Figure S3. Three-year overall survival curve after CRT. Survival curve of patients after CRT for cervical esophageal squamous cell carcinoma (n=31). Data were analyzed using a log-rank test. *P<0.05. CRT, chemoradiotherapy.

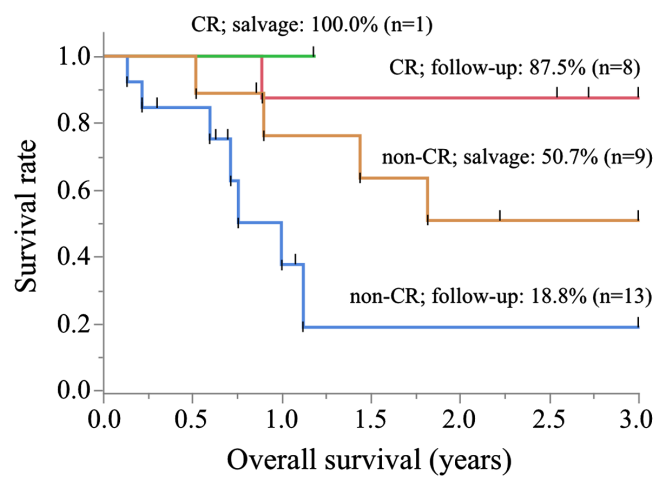


Table SI. Comparison between the two groups according to BMI in surgery cases (n=48).

Variable	Total, n	BMI, n		P-value
		≥20	<20	
Age, years				0.771
≥65	28	13	15	
<65	20	8	12	
Sex				0.510
Male	36	17	19	
Female	12	4	8	
cT				0.704
T1	6	3	3	
T2-T3	27	13	14	
T4	15	5	10	
Tumor length, mm				0.032 ^a
≥40	22	6	16	
<40	26	15	11	
cN				0.536
N0	14	5	9	
N1-N3	34	16	18	
cStage				0.898
cStage0-I	4	2	2	
cStageII-III	11	4	7	
cStageIV	33	15	18	
NAT				0.107
Present	35	18	17	
Absent	13	3	10	
Distance				0.018 ^a
Short group	30	9	21	
Long group	18	12	6	
Laryngeal preservation				0.008 ^a
Present	21	14	7	
Absent	27	7	20	

^aP<0.05. The data were analyzed using χ^2 test or Fisher's exact test. cT, clinical T; cN, clinical N; cStage, clinical Stage; NAT, neoadjuvant therapy; Short group, patients with distance from the cricoid cartilage ≥-5 mm; Long group, patients with distance from the cricoid cartilage <-5 mm.

Table SII. Patterns of recurrence in patients with cervical esophageal squamous cell carcinoma with or without laryngeal preservation.

Patterns of recurrence	Total, n	Preservation - (n=27)	Preservation + (n=21)	P-value
Total recurrence	23	11	12	0.383
Distant metastasis	9	8	1	0.031 ^a
Local recurrence	16	5	11	0.029 ^a

^aP<0.05 analyzed using χ^2 test or Fisher's exact test. Preservation, laryngeal preservation.

Table SIII. Patterns of recurrence in patients with cervical esophageal squamous cell carcinoma based on the distance from the cricoid cartilage.

Patterns of recurrence	Total, n	Distance, n		P-value
		Short group	Long group	
Total recurrence	23	14	9	1.000
Distant metastasis	9	7	2	0.451
Local recurrence	16	8	8	0.226

Short group, patients with distance from the cricoid cartilage \geq -5 mm; Long group, patients with distance from the cricoid cartilage $<$ -5 mm.

Table SIV. Three-year overall survival rates of surgery cases with cervical esophageal squamous cell carcinoma (n=48).

Variable	Total, n	3-year overall survival rate, %	Univariate analysis P-value	Multivariate analysis		
				HR	95% CI	P-value
Age, years			0.361			
≥65	28	69.3				
<65	20	53.6				
Sex			0.220			
Male	36	55.0				
Female	12	82.5				
BMI			0.701			
≥20	21	64.2				
<20	27	59.7				
ASA-PS			0.514			
1,2	41	63.8				
3,4	7	50.0				
cT			0.002 ^a	3.71	1.36-10.53	0.011 ^b
T1-T3	33	74.8				
T4	15	32.8				
Tumor length, mm			0.919			
≥40	22	64.8				
<40	26	58.2				
cN			0.772			
N0	14	68.8				
N1-N3	34	59.2				
Distance			0.010 ^a	4.91	1.35-31.47	0.013 ^b
Short group	30	45.8				
Long group	18	87.4				
Laryngeal preservation			0.120			
Present	21	73.0				
Absent	27	51.8				
Resection			0.542			
R0	32	65.4				
R1,R2	16	54.0				
Initial treatment			0.618			
dCRT	10	52.5				
Surgery	38	63.9				

^aP<0.05 using the log-rank test; ^bP<0.05 using Cox hazard regression analysis. BMI, Body mass index; ASA-PS, American Society of Anesthesiologists' Physical Status; cT, clinical T; cN, clinical N; Distance, distance between the cricoid cartilage and upper tumor edge; Short group, patients with distance from the cricoid cartilage ≥-5 mm; Long group, patients with distance from the cricoid cartilage <-5 mm; dCRT, definitive chemoradiotherapy; HR, hazard ratio.