Supplemental Online Content

Luo H, Lu J, Bai Y, et al; the ESCORT-1st Investigators. Effect of camrelizumab vs placebo added to chemotherapy on survival and progression-free survival in patients with advanced or metastatic esophageal squamous cell carcinoma: the ESCORT-1st randomized clinical trial. *JAMA*. doi:10.1001/jama.2021.12836

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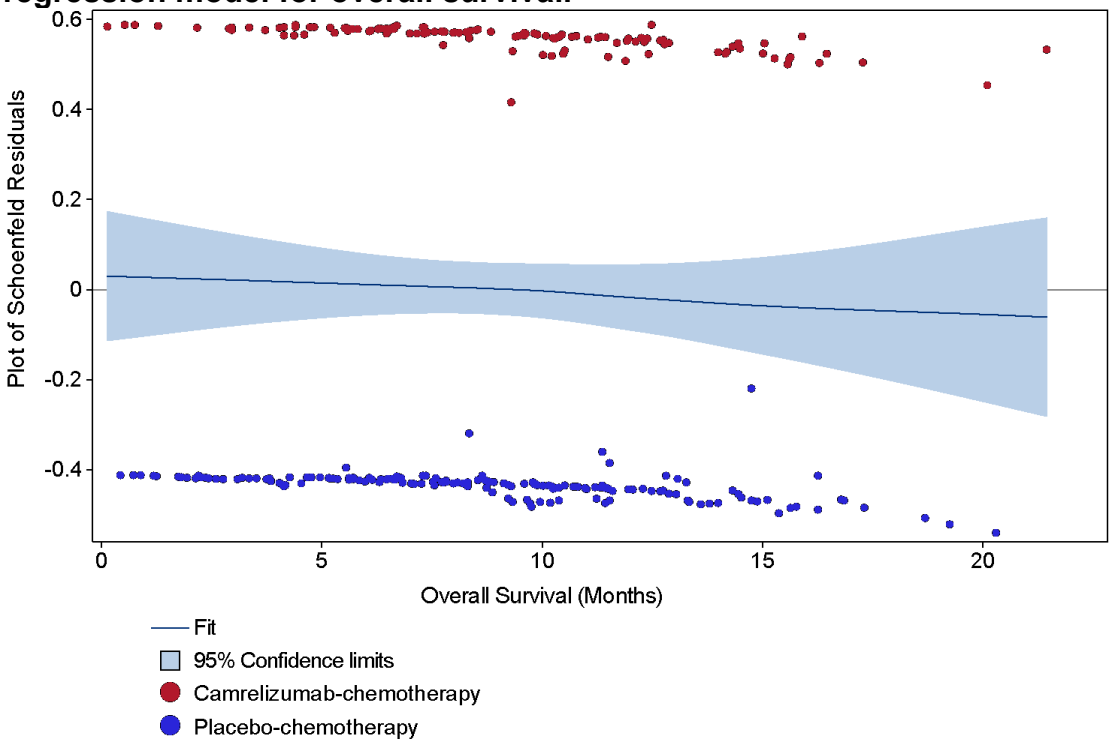
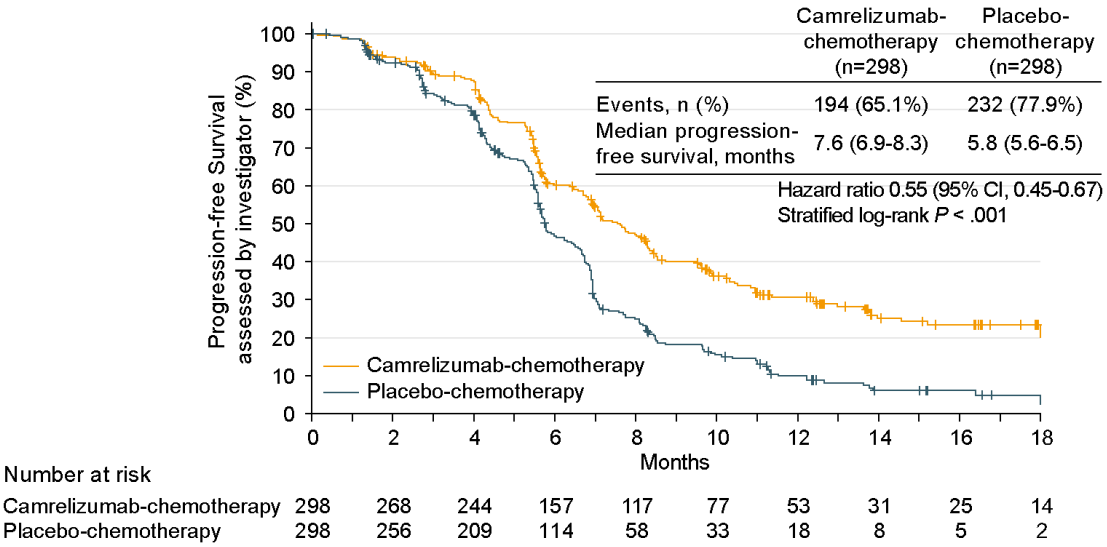
eFigure 1. The plot of Schoenfeld residuals from stratified cox proportional regression model for overall survival.



eFigure 2. Kaplan-Meier curve of progression-free survival assessed by investigator.

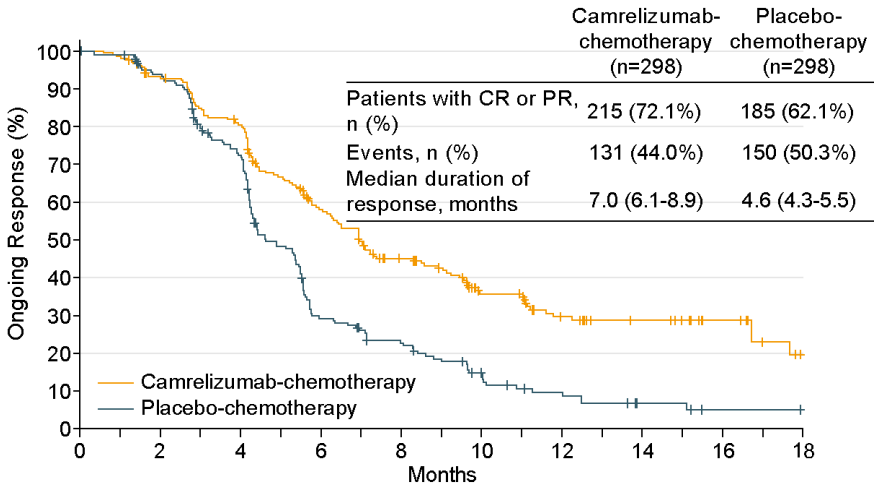


Number at risk

Camrelizumab-chemotherapy	298	268	244	157	117	77	53	31	25	14
Placebo-chemotherapy	298	256	209	114	58	33	18	8	5	2

eFigure 3. Kaplan-Meier curve of duration of response assessed by investigator.

Abbreviation: CR, complete response; PR, partial response.



	Camrelizumab-chemotherapy (n=298)	Placebo-chemotherapy (n=298)
Patients with CR or PR, n (%)	215 (72.1%)	185 (62.1%)
Events, n (%)	131 (44.0%)	150 (50.3%)
Median duration of response, months	7.0 (6.1-8.9)	4.6 (4.3-5.5)

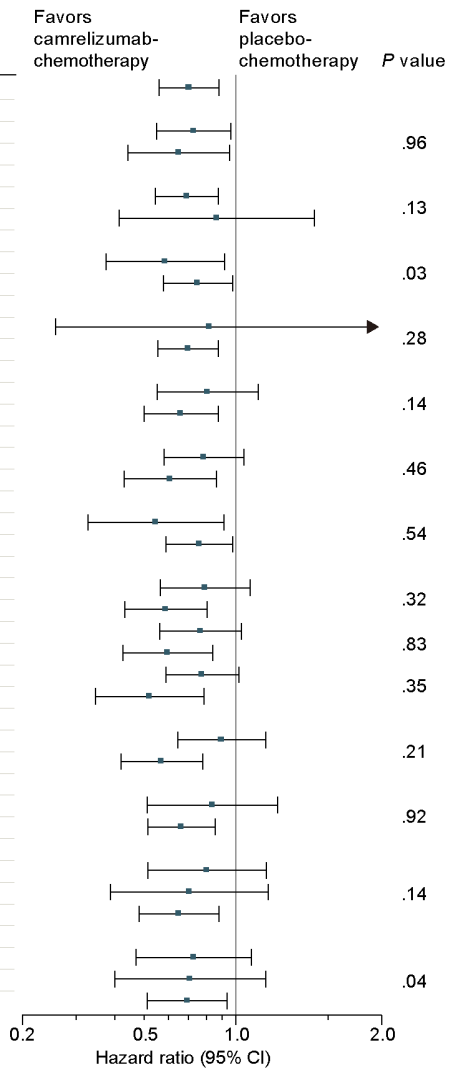
Number at risk										
Camrelizumab-chemotherapy	215	190	162	104	74	45	31	23	13	4
Placebo-chemotherapy	185	164	122	47	33	18	10	4	1	0

eFigure 4. Forest plot analyses of overall survival in subgroups.

The P value was post hoc analysis.

Abbreviation: ECOG, Eastern Cooperative Oncology Group.

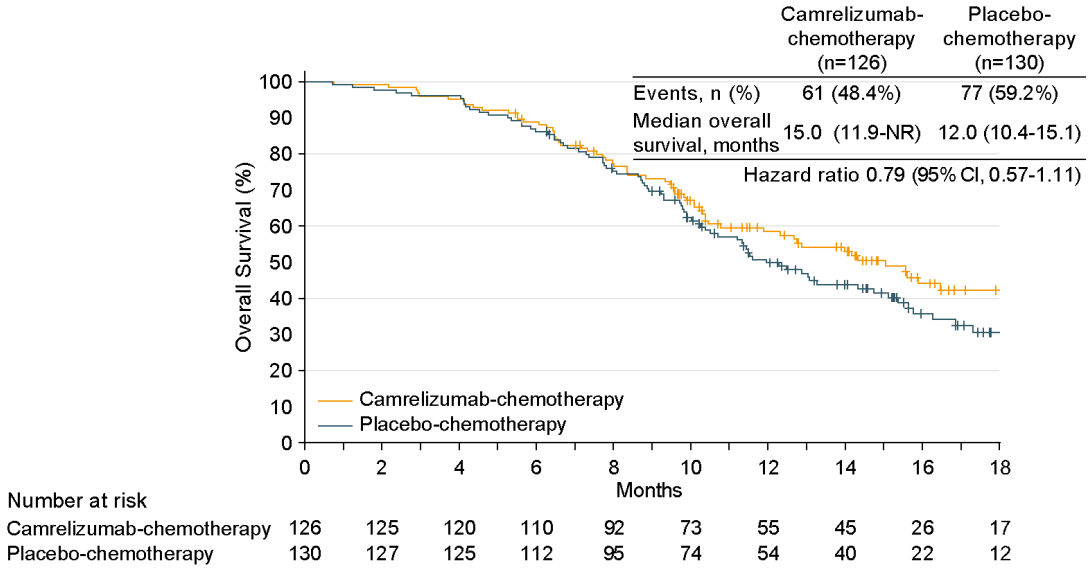
	No. of events / No. of patients			
	Camrelizumab-chemotherapy	Placebo-chemotherapy	Hazard ratio (95% CI)	*P* value
All patients	135/298	174/298	0.70 (0.56-0.88)	
Age at baseline, years				
<65	91/201	106/185	0.73 (0.55-0.96)	.96
≥65	44/97	68/113	0.65 (0.44-0.95)	
Sex				
Male	119/260	159/263	0.69 (0.55-0.88)	.13
Female	16/38	15/35	0.87 (0.42-1.81)	
Liver metastases				
Yes	32/69	49/68	0.59 (0.38-0.92)	.03
No	103/229	125/230	0.75 (0.58-0.97)	
Definite radiochemotherapy				
Yes	5/15	7/16	0.82 (0.26-2.63)	.28
No	130/283	167/282	0.70 (0.56-0.88)	
Body mass index				
<20 kg per square meter	51/94	57/88	0.81 (0.55-1.19)	.14
≥20 kg per square meter	84/204	117/210	0.66 (0.50-0.88)	
Body weight				
<60 kg	82/164	90/152	0.79 (0.58-1.06)	.46
≥60 kg	53/134	84/146	0.61 (0.43-0.86)	
ECOG performance status				
0	25/71	38/66	0.55 (0.33-0.91)	.54
1	110/227	136/232	0.76 (0.59-0.98)	
PD-L1 expression level				
<1%	61/126	77/130	0.79 (0.57-1.11)	.32
≥1%	71/166	95/163	0.59 (0.43-0.80)	
<5%	72/145	94/155	0.77 (0.56-1.04)	.83
≥5%	60/147	78/138	0.60 (0.43-0.84)	
<10%	92/188	114/195	0.78 (0.59-1.02)	.35
≥10%	40/104	58/98	0.52 (0.35-0.79)	
Number of involved organs (metastasis)				
1	64/138	77/157	0.90 (0.64-1.25)	.21
≥2	71/160	97/141	0.57 (0.42-0.78)	
Disease stage				
Regional recurrence	33/63	32/55	0.84 (0.51-1.37)	.92
Distant metastasis	102/235	142/243	0.66 (0.51-0.86)	
Smoking				
Never	41/100	38/81	0.80 (0.52-1.26)	.14
Current	25/42	21/33	0.70 (0.39-1.28)	
Former	69/156	115/184	0.65 (0.48-0.88)	
Alcohol				
Never	37/101	47/98	0.73 (0.47-1.12)	.04
Current	22/35	27/37	0.71 (0.40-1.25)	
Former	76/162	100/163	0.69 (0.51-0.94)	



eFigure 5. Kaplan-Meier curves of overall survival in patients with baseline PD-L1 <1% or ≥1%.

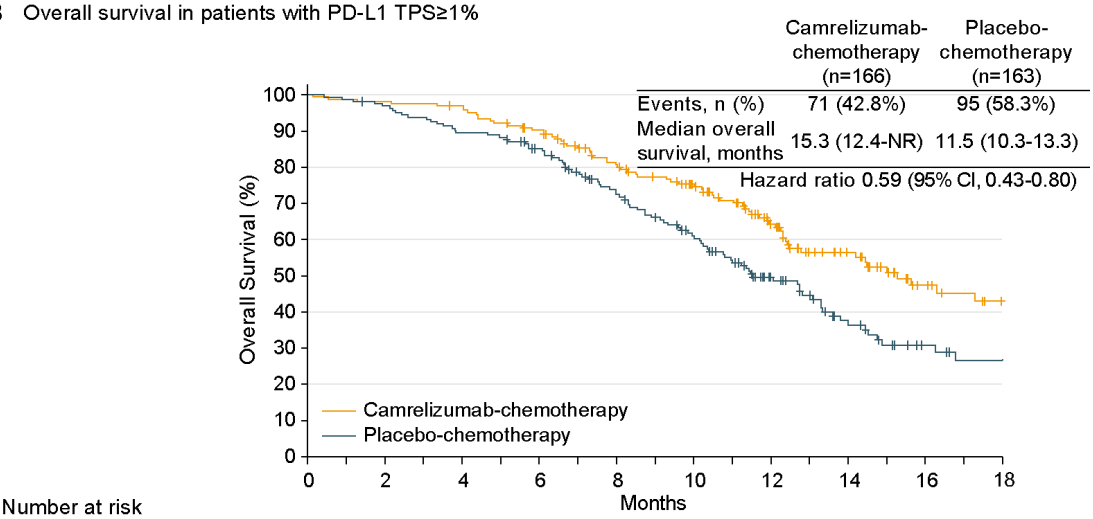
Abbreviation: NR, not reached.

A Overall survival in patients with PD-L1 TPS<1%



Number at risk										
Camrelizumab-chemotherapy	126	125	120	110	92	73	55	45	26	17
Placebo-chemotherapy	130	127	125	112	95	74	54	40	22	12

B Overall survival in patients with PD-L1 TPS≥1%



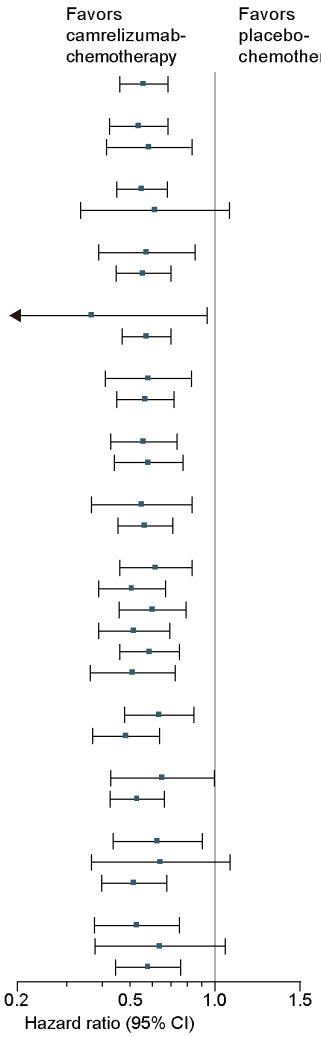
Number at risk										
Camrelizumab-chemotherapy	166	163	160	146	123	105	71	43	24	16
Placebo-chemotherapy	163	157	145	133	104	83	53	29	16	12

eFigure 6. Forest plot analyses of progression-free survival assessed by independent review committee in subgroups.

The P value was post hoc analysis.

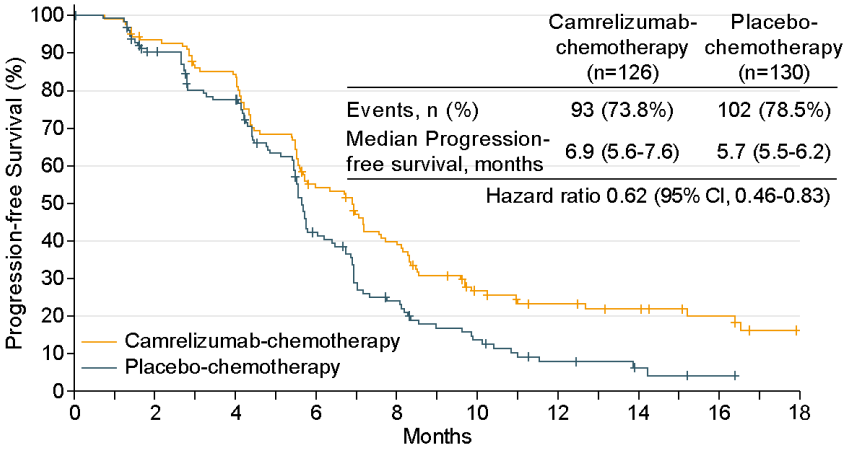
Abbreviation: ECOG, Eastern Cooperative Oncology Group.

	No. of events / No. of patients			
	Camrelizumab-chemotherapy	Placebo-chemotherapy	Hazard ratio (95% CI)	*P* value
All patients	199/298	229/298	0.56 (0.46-0.68)	
Age at baseline, years				
<65	139/201	148/185	0.54 (0.43-0.68)	.16
≥65	60/97	81/113	0.59 (0.41-0.83)	
Sex				
Male	177/260	205/263	0.55 (0.45-0.68)	.04
Female	22/38	24/35	0.62 (0.34-1.13)	
Liver metastases				
Yes	53/69	57/68	0.58 (0.39-0.85)	.003
No	146/229	172/230	0.56 (0.45-0.70)	
Definite radiochemotherapy				
Yes	8/15	13/16	0.37 (0.14-0.94)	.83
No	191/283	216/282	0.57 (0.47-0.70)	
Body mass index				
<20 kg per square meter	63/94	68/88	0.58 (0.41-0.83)	.23
≥20 kg per square meter	136/204	161/210	0.57 (0.45-0.72)	
Body weight				
<60 kg	106/164	114/152	0.56 (0.43-0.74)	.83
≥60 kg	93/134	115/146	0.58 (0.44-0.77)	
ECOG performance status				
0	48/71	50/66	0.55 (0.37-0.83)	.63
1	151/227	179/232	0.57 (0.45-0.71)	
PD-L1 expression level				
<1%	93/126	102/130	0.62 (0.46-0.83)	.38
≥1%	102/166	122/163	0.51 (0.39-0.67)	
<5%	105/145	121/155	0.60 (0.46-0.79)	.53
≥5%	90/147	103/138	0.52 (0.39-0.69)	
<10%	133/188	150/195	0.59 (0.46-0.75)	.75
≥10%	62/104	74/98	0.51 (0.36-0.72)	
Number of involved organs (metastasis)				
1	88/138	114/157	0.64 (0.48-0.84)	.17
≥2	111/160	115/141	0.49 (0.37-0.64)	
Disease stage				
Regional recurrence	47/63	41/55	0.65 (0.43-1.00)	.83
Distant metastasis	152/235	188/243	0.53 (0.43-0.66)	
Smoking				
Never	64/100	58/81	0.63 (0.44-0.90)	.16
Current	29/42	25/33	0.64 (0.37-1.13)	
Former	106/156	146/184	0.52 (0.40-0.68)	
Alcohol				
Never	61/101	73/98	0.53 (0.38-0.75)	.008
Current	29/35	31/37	0.64 (0.38-1.09)	
Former	109/162	125/163	0.58 (0.45-0.76)	



eFigure 7. Kaplan-Meier curves of progression-free survival per independent review committee in patients with baseline PD-L1 <1% or ≥1%.

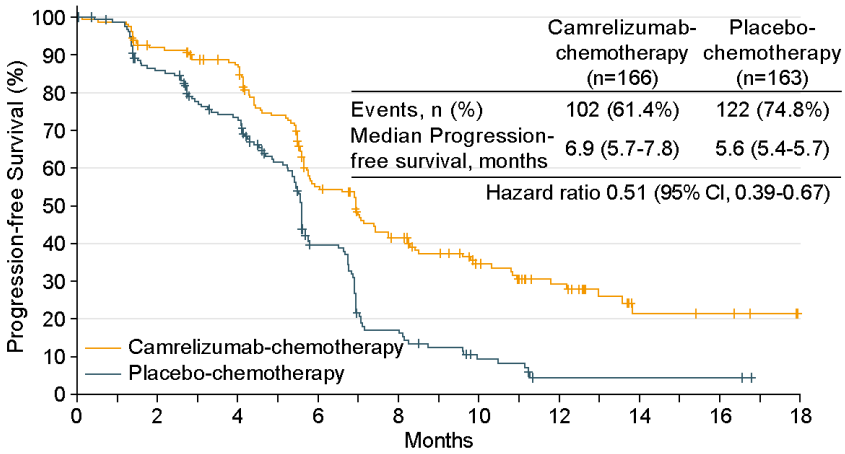
A Progression-free survival per independent review committee in patients with PD-L1 TPS <1%



Number at risk

Camrelizumab-chemotherapy	126	113	101	62	44	24	18	15	11	6
Placebo-chemotherapy	130	108	90	45	24	13	6	3	1	0

B Progression-free survival per independent review committee in patients with PD-L1 TPS ≥1%



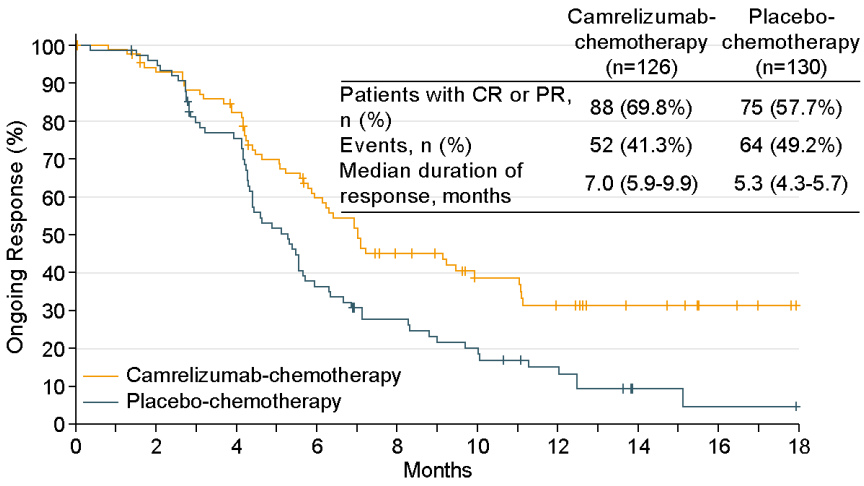
Number at risk

Camrelizumab-chemotherapy	166	145	132	77	53	35	22	8	7	3
Placebo-chemotherapy	163	130	103	46	19	8	2	2	2	0

eFigure 8. Kaplan-Meier curves of duration of response per investigator in patients with baseline PD-L1 <1% or ≥1%.

Abbreviation: CR, complete response; PR, partial response.

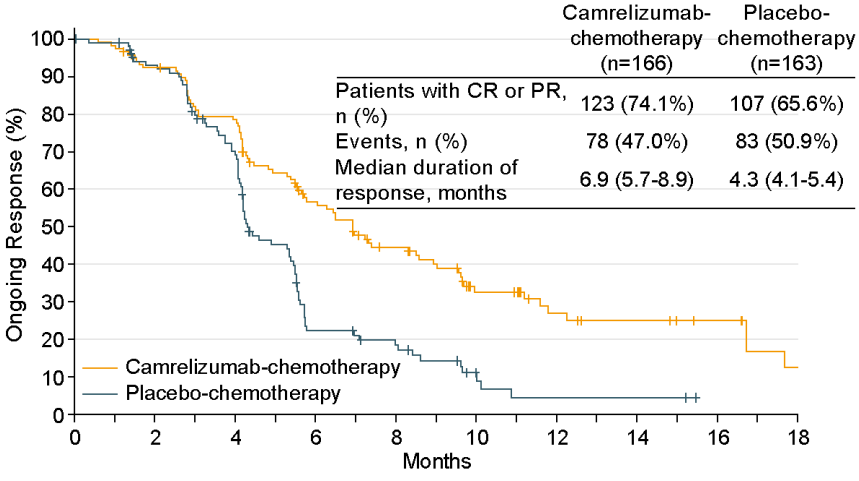
A Duration of response per investigator in patients with PD-L1 TPS <1%



Number at risk

Camrelizumab-chemotherapy	88	79	68	45	31	21	16	11	5	1
Placebo-chemotherapy	75	71	54	26	18	13	8	2	1	0

B Duration of response per investigator in patients with PD-L1 TPS ≥1%



Number at risk

Camrelizumab-chemotherapy	123	108	91	57	41	22	14	11	8	3
Placebo-chemotherapy	107	91	66	19	14	5	2	2	0	0

eTable 1. List of investigators

Principal investigators	Site name	No. of patients
Rui-Hua Xu / Huiyan Luo	Sun Yat-sen University Cancer Center, Guangzhou, China	40
Jin Lu	Sichuan Cancer Hospital, Chengdu, China	26
Yuxian Bai	Harbin Medical University Cancer Hospital, Harbin, China	23
Teng Mao	Shanghai Chest Hospital, Shanghai, China	23
Jun Wang / Junfeng Liu	The Fourth Hospital of Hebei Medical University, Shijiazhuang, China	22
Qingxia Fan	The First Affiliated Hospital of Zhengzhou University, Zhengzhou, China	20
Yiping Zhang	Zhejiang Cancer Hospital, Hangzhou, China	18
Kuaile Zhao	Fudan University Shanghai Cancer Center, Shanghai, China	18
Zhendong Chen	The Second Affiliated Hospital of Anhui Medical University, Hefei, China	17
Jiancheng Li	Fujian Provincial Cancer Hospital, Fuzhou, China	16
Shegan Gao	The First Affiliated Hospital of Henan University of Science & Technology, Luoyang, China	16
Zhichao Fu	900 Hospital of the Joint Logistics Support Force, Fuzhou, China	15
Kangsheng Gu	The First Affiliated Hospital of Anhui Medical University, Hefei, China	14
Zhihua Liu	Jiangxi Provincial Cancer Hospital, Nanchang, China	12
Lin Wu	Hunan Cancer Hospital, Changsha, China	12
Xiaodong Zhang	Peking University Cancer Hospital and Institute, Beijing, China	11
Zuoxing Niu	Shandong Cancer Hospital Affiliated to Shandong University, Jinan, China	11
Yi Ba	Tianjin Medical University Cancer Institute and Hospital, Tianjin, China	11

eTable 1. List of investigators (Continued)

Principal investigators	Site name	No. of patients
Jifeng Feng	Jiangsu Cancer Hospital, Nanjing, China	11
Helong Zhang	The Second Affiliated Hospital of Air Force Medical University, Xi'an, China	11
Jing Huang	Cancer Hospital Chinese Academy of Medical Sciences, Beijing, China	10
Ying Cheng	Jilin Cancer Hospital, Changchun, China	10
Xianglin Yuan	Tongji Medical College Huazhong University of Science & Technology, Wuhan, China	10
Ying Liu	Henan Cancer Hospital, Zhengzhou, China	10
Dong Wang	Army Medical Center of PLA, Chongqing, China	10
Li Zhang	Chongqing Three Gorges Central Hospital, Chongqing, China	10
Xuhong Min	Anhui Chest Hospital, Hefei, China	10
Dong Ma	Guangdong Provincial People's Hospital, Guangzhou, China	9
Li Liu	Union Hospital Tongji Medical College Huazhong University of Science and Technology, Wuhan, China	9
Feng Ye	The First Affiliated Hospital of Xiamen University, Xiamen, China	8
Tianshu Liu	Zhongshan Hospital of Fudan University, Shanghai, China	8
Xiuwen Wang	Qilu Hospital of Shandong University, Jinan, China	8
Likun Liu	Shanxi Provincial Hospital of Traditional Chinese Medicine, Taiyuan, China	8
Bing Xia	Hangzhou First People's Hospital, Hangzhou, China	7
Fengming Ran	Hubei Cancer Hospital, Wuhan, China	7
Sanyuan Sun	Xuzhou Central Hospital, Nanjing, China	7
Zhanhui Miao	The First Affiliated Hospital of Xinxiang Medical College, Xinxiang, China	7

eTable 1. List of investigators (Continued)

Principal investigators	Site name	No. of patients
Jun Bie	Nanchong Central Hospital, Nanchong, China	7
Yong Gao	Shanghai Dongfang Hospital, Shanghai, China	7
Junyan Yu	Heping Hospital Affiliated to Changzhi Medical College, Changzhi, China	7
Li Chen	The First Affiliated Hospital of Nanchang University, Nanchang, China	6
Yifu He	Anhui Provincial Cancer Hospital, Hefei, China	6
Wei Ren	Drum Tower Hospital Affiliated to Nanjing University of Medicine, Nanjing, China	6
Suxia Luo	Henan Cancer Hospital, Zhengzhou, China	6
Guangqiang Zhao	Yunnan Cancer Hospital, Kunming, China	6
Youen Lin	Jieyang People's Hospital, Jieyang, China	6
Long Chen	Guangxi Medical University Affiliated Tumor Hospital, Nanning, China	6
Zhiyuan Guo	Handan Central Hospital, Handan, China	6
Chunhong Hu	The Second Xiangya Hospital of Central South University, Changsha, China	5
Ying Wang	Chongqing University Cancer Hospital, Chongqing, China	5
Nong Xu	The First Affiliated Hospital of Medical School of Zhejiang University, Hangzhou, China	4
Baofu Chen	Taizhou Hospital of Zhejiang Province, Taizhou, China	4
Xianbao Zhan	Shanghai Changhai Hospital, Shanghai, China	3
Yuping Chen	Cancer Hospital of Shantou University Medical College, Guangzhou, China	2
Hongda Lu	The Central Hospital of Wuhan, Wuhan, China	2
Shukui Qin	Qinhuai Hospital of General Hospital of Eastern Theater Command, Nanjing, China	2
Guolei Wang	Henan Provincial Chest Hospital, Zhengzhou, China	2

eTable 1. List of investigators (Continued)

Principal investigators	Site name	No. of patients
Liming Chen	The First Affiliated Hospital of Shantou University Medical College, Shantou, China	1
Li Bai	PLA General Hospital, Beijing, China	1
Jingdong Zhang	Liaoning Province Cancer Hospital, Shenyang, China	1

eTable 2. Detailed reasons of patients who did not meet inclusion criteria or met exclusion criteria

No. of criteria in protocol	Detailed criteria	No. of patients
Total		132
Did not meet inclusion criteria		52
#1	Aged 18–75 years, male or female.	1
#2	Histologically or cytologically diagnosed with unresectable locally advanced/recurrent (unable to receive esophagectomy and definitive chemoradiation) or distant metastatic esophageal squamous cell carcinoma	8
#3	Have not received any systemic anti-tumor treatment. A patient who has received neoadjuvant/adjuvant and definitive chemoradiation can be screened if his/her last treatment is more than 6 months from recurrence or progression	5
#4	With at least one measurable lesion (cavity structures such as esophagus may not serve as measurable lesions) according to RECIST v1.1 criteria, which has not received any local treatment including radiotherapy (a lesion located in an area subjected to a previous radiotherapy can be selected as the target lesion if PD is confirmed)	14
#5	Tissue samples for biomarker (such as PD-L1) analysis must be provided. Fresh tissues are preferred. Archival samples of 5–8 paraffin embedded sections that are 3–5 μm thick are also acceptable if a fresh biopsy is not accessible	1
#6	ECOG: 0–1	2
#7	Expected survival ≥ 12 weeks	2
#8	Normal laboratory test results	19

eTable 2. Detailed reasons of patients who did not meet inclusion criteria or met exclusion criteria (Continued)

No. of criteria in protocol	Detailed criteria	No. of patients
#10	Subjects must participate voluntarily, sign the informed consent form, have good compliance, and cooperate with follow-up visits.	2
Met exclusion criteria		82
#1	BMI < 18.5 kg/m^2 or weight loss ≥ 10% within 2 months before screening (at the same time, the effect of a large amount of pleural effusions and ascites on body weight should be considered)	9
#3	Significant tumor invasion into adjacent organs (aorta or trachea) of esophageal lesions leading to higher risk of bleeding or fistula	12
#4	Presence of uncontrollable pleural effusion, pericardial effusion, or ascites requiring repeated drainage	2
#7	Suffering toxicity from prior anti-tumor therapy that has not recovered to CTCAE Grade ≤ 1 (except alopecia) or a level specified in inclusion/exclusion criteria	1
#8	With central nervous system metastases	3
#9	With any active autoimmune disease, or a history of autoimmune disease (including but not limited to interstitial pneumonia, colitis, hepatitis, hypophysitis, vasculitis, nephritis, hyperthyroidism, and hypothyroidism), except for: vitiligo, or cured childhood asthma/allergy that do not require any intervention in adulthood; autoimmune-mediated hypothyroidism treated with a stable dose of thyroid hormone replacement therapy; and type I diabetes mellitus treated with a stable dose of insulin; patients with asthma requiring medical intervention with bronchodilators cannot be enrolled	11

eTable 2. Detailed reasons of patients who did not meet inclusion criteria or met exclusion criteria (Continued)

No. of criteria in protocol	Detailed criteria	No. of patients
#11	Having any poorly-controlled cardiovascular clinical symptom or disease, including but not limited to: (1) NYHA Class II or higher cardiac failure, (2) unstable angina, (3) myocardial infarction within the past year, and (4) clinically significant supraventricular or ventricular arrhythmia without clinical intervention or is poorly controlled after clinical intervention	3
#12	Having any serious infection (CTCAE Grade > 2) within 4 weeks prior to the first dose of the study drug, such as serious pneumonia, bacteremia, or infection-related complication requiring hospitalization; baseline chest radiography suggesting presence of active lung inflammation, infection symptoms and signs present within 2 weeks prior to the first dose of the study drug or requiring treatment by oral or intravenous administration of any antibiotic, except prophylactic use of antibiotics	13
#13	With a history of interstitial lung disease (except radiation pneumonitis that has not received hormone treatment), or a history of non-infectious pneumonitis	4
#14	Having active tuberculosis infection found in medical history or through CT examination, or having a history of active tuberculosis infection within 1 year prior to enrollment, or having had a history of active tuberculosis infection more than 1 year prior to enrollment but being treatment-naive	2
#15	With active hepatitis B virus (HBV DNA ≥ 2000 IU/mL or 10^4 copies/mL), hepatitis C virus (positive for hepatitis C antibody, and HCV-RNA higher than the lower limit of detection of the analytical method)	9

eTable 2. Detailed reasons of patients who did not meet inclusion criteria or met exclusion criteria (Continued)

No. of criteria in protocol	Detailed criteria	No. of patients
#16	Diagnosed with any other malignancy within 5 years prior to the first dose of the study drug, with the exception of malignancies with low risk of metastasis and death (5-year survival rate > 90%) such as adequately treated basal cell or squamous cell skin cancer or cervical carcinoma in situ	4
#18	Other factors, as determined by the investigator, which may result in premature discontinuation of treatment. For example, other serious medical conditions (including mental illnesses) requiring concomitant treatment, serious laboratory abnormalities, family or social factors, and other conditions that may affect subjects' safety or the collection of trial data	11

eTable 3. Summary of post-discontinuation therapy.

	Camrelizumab-chemotherapy (N = 298)	**Placebo-chemotherapy (N = 298)**
Receiving at least one anti-tumor therapies	119 (39.9)	158 (53.0)
Surgery		
Esophagectomy	0	1 (0.3)
Other surgeries	2 (0.7)	3 (1.0)
Radiotherapy	51 (17.1)	58 (19.5)
Systemic anti-tumor therapies		
Chemotherapy	77 (25.8)	112 (37.6)
Fluorouracil + platinum	16 (5.4)	22 (7.4)
Fluorouracil	16 (5.4)	21 (7.0)
Paclitaxel + platinum	10 (3.4)	17 (5.7)
Fluorouracil + Irinotecan	9 (3.0)	15 (5.0)
Paclitaxel	3 (1.0)	9 (3.0)
Others	23 (7.7)	28 (9.4)
Targeted therapy	28 (9.4)	56 (18.8)
Immunotherapy	8 (2.7)	40 (13.4)
Others	2 (0.7)	1 (0.3)

Data are n (%).

eTable 4. Tumor response assessed by investigator.

	Camrelizumab-chemotherapy (N = 298)	**Placebo-chemotherapy (N = 298)**
Best overall response [a]		
Complete response	20 (6.7)	11 (3.7)
Partial response	195 (65.4)	174 (58.4)
Stable disease	57 (19.1)	80 (26.8)
Progressive disease	14 (4.7)	15 (5.0)
Not evaluable [b]	0	2 (0.7)
Not assessable [c]	12 (4.0)	16 (5.4)
Objective response [d]	215 (72.1, 66.7-77.2)	185 (62.1, 56.3-67.6)
Difference (95% CI)	10.1 (2.6-17.6)	
Two-sided P value [e]	0.009	
Disease control [f]	272 (91.3, 87.5-94.2)	265 (88.9, 84.8-92.3)
Difference (95% CI)	2.3 (-2.4-7.1)	
Two-sided P value	0.33	

Data are n (%) or n (%, 95% CI).

[a] Responses were evaluated according to RECIST version 1.1 by investigator.

[b] "Not evaluable" included patients who had at least one post-baseline tumor assessments, but their target lesions at post-baseline were not evaluable for response determination.

[c] "Not assessable" included patients whose post-baseline tumor assessments were not performed.

[d] Objective response was defined as patients whose best overall response was complete or partial response.

[e] Objective response rate and disease control rate were presented with 95% CIs (Clopper-Pearson method). The two-sided 95% CIs of difference between the groups are calculated using Wald method and the two-sided P value are estimated using the stratified Cochran-Mantel-Haenszel test.

[f] Disease control was defined as patients whose best overall response was complete response, partial response, or stable disease.

eTable 5. Tumor responses per investigator in patients with baseline PD-L1 <1% or ≥1%.

	Camrelizumab-chemotherapy	**Placebo-chemotherapy**
PD-L1 <1%		
Number of patients	126	130
Overall response rate	69.8 (61.0-77.7)	57.7 (48.7-66.3)
Disease control rate	91.3 (84.9-95.6)	89.2 (82.6-94.0)
PD-L1 ≥1%		
Number of patients	166	163
Overall response rate	74.1 (66.7-80.6)	65.6 (57.8-72.9)
Disease control rate	92.2 (87.0-95.8)	88.3 (82.4-92.8)

Data are n or % (95% CI).

eTable 6. Treatment-related serious adverse events.

	Camrelizumab-chemotherapy (N = 298)	**Placebo-chemotherapy (N = 297)**
Total	90 (30.2)	69 (23.2)
Events occurring in ≥1% of patients in either group		
Pneumonitis	17 (5.7)	8 (2.7)
Anemia	10 (3.4)	1 (0.3)
White blood cell count decreased	8 (2.7)	10 (3.4)
Neutrophil count decreased	8 (2.7)	10 (3.4)
Vomiting	8 (2.7)	4 (1.3)
Pneumonia	6 (2.0)	5 (1.7)
Febrile neutropenia	5 (1.7)	8 (2.7)
Nausea	4 (1.3)	3 (1.0)
Hyponatremia	4 (1.3)	2 (0.7)
Blood creatinine increased	4 (1.3)	1 (0.3)
Platelet count decreased	4 (1.3)	0
Reactive cutaneous capillary endothelial proliferation	4 (1.3)	0
Alanine aminotransferase increased	3 (1.0)	2 (0.7)
Aspartate aminotransferase increased	3 (1.0)	2 (0.7)
Hypokalemia	3 (1.0)	1 (0.3)
Death from unknown cause	2 (0.7)	5 (1.7)
Anal abscess	0	3 (1.0)

Data are n (%). Treatment-related serious adverse event indicates the treatment-related adverse event that leads to death, life-threatening, hospitalization (initial or prolonged), disability or permanent damage, congenital anomaly/birth defect, required intervention to prevent permanent impairment or damage (devices), or other important medical events.

eTable 7. Treatment discontinuation caused by treatment-related adverse events.

	Camrelizumab-chemotherapy (N = 298)	**Placebo-chemotherapy (N = 297)**
Total	36 (12.1)	28 (9.4)
Anemia	6 (2.0)	1 (0.3)
Creatinine renal clearance decreased	4 (1.3)	1 (0.3)
Pneumonitis	4 (1.3)	4 (1.3)
Blood creatinine increased	3 (1.0)	4 (1.3)
Neurotoxicity	2 (0.7)	1 (0.3)
Hypersensitivity	2 (0.7)	1 (0.3)
Drug hypersensitivity	2 (0.7)	0
Decreased appetite	2 (0.7)	0
Asthenia	2 (0.7)	3 (1.0)
Platelet count decreased	1 (0.3)	0
Febrile neutropenia	1 (0.3)	0
Hypoesthesia	1 (0.3)	2 (0.7)
Peripheral sensory neuropathy	1 (0.3)	1 (0.3)
Neuropathy peripheral	1 (0.3)	1 (0.3)
Diabetic ketoacidosis	1 (0.3)	0
Diarrhea	1 (0.3)	0
Hematemesis	1 (0.3)	0
Esophageal fistula	1 (0.3)	0
Hand-foot syndrome	1 (0.3)	0
Pruritus	1 (0.3)	0
Atrial flutter	1 (0.3)	0
Septic shock	1 (0.3)	0
Infusion related reaction	1 (0.3)	0
Hypophysitis	1 (0.3)	0
Pruritus genital	1 (0.3)	0
Hypovolemic shock	1 (0.3)	0

eTable 7. Treatment discontinuation caused by treatment-related adverse events. (Continued)

	Camrelizumab-chemotherapy (N = 298)	Placebo-chemotherapy (N = 297)
Neutrophil count decreased	0	3 (1.0)
White blood cell count decreased	0	2 (0.7)
Alanine aminotransferase increased	0	1 (0.3)
Blood urea increased	0	1 (0.3)
Immune-mediated pneumonitis	0	1 (0.3)
Upper airway obstruction	0	1 (0.3)
Esophagobronchial fistula	0	1 (0.3)
Malnutrition	0	2 (0.7)
Hypoproteinemia	0	1 (0.3)
Hypocalcemia	0	1 (0.3)
Hypokalemia	0	1 (0.3)
Hyponatremia	0	1 (0.3)
Electrolyte imbalance	0	1 (0.3)
Ileus	0	1 (0.3)
Flatulence	0	1 (0.3)
Inguinal hernia	0	1 (0.3)
Vomiting	0	1 (0.3)
Acute myocardial infarction	0	1 (0.3)
Myocarditis	0	1 (0.3)
Acute kidney injury	0	1 (0.3)

Data are n (%).

eTable 8. Deaths caused by treatment-related adverse events.

	Camrelizumab-chemotherapy (N = 298)	**Placebo-chemotherapy (N = 297)**
Total	9 (3.0)	11 (3.7)
Death from unknown cause	2 (0.7)	5 (1.7)
Respiratory failure	1 (0.3)	1 (0.3)
Condition aggravated	1 (0.3)	0
Sudden cardiac death	1 (0.3)	0
Interstitial lung disease	1 (0.3)	0
Completed suicide	1 (0.3)	0
Hematemesis	1 (0.3)	0
Circulatory collapse	1 (0.3)	0
Anemia	1 (0.3)	0
Pneumonia	0	1 (0.3)
Infected shock	0	1 (0.3)
Electrolyte imbalance	0	1 (0.3)
Pneumonitis	0	1 (0.3)
Immune-mediated pneumonitis	0	1 (0.3)

Data are n (%).

eTable 9. Immune-related adverse events.

	Camrelizumab-chemotherapy (N = 298)	**Placebo-chemotherapy (N = 297)**
Total	252 (84.6)	98 (33.0)
Events occurring in ≥1% of patients in either group		
Reactive capillary endothelial proliferation	238 (79.9)	32 (10.8)
Hypothyroidism	34 (11.4)	13 (4.4)
Pruritus	20 (6.7)	7 (2.4)
Hyperthyroidism	16 (5.4)	3 (1.0)
Rash	16 (5.4)	6 (2.0)
Pneumonitis	15 (5.0)	9 (3.0)
Blood thyroid stimulating hormone decreased	10 (3.4)	1 (0.3)
Diarrhea	8 (2.7)	7 (2.4)
Proteinuria	8 (2.7)	3 (1.0)
Tri-iodothyronine free decreased	7 (2.3)	7 (2.4)
Blood thyroid stimulating hormone increased	7 (2.3)	5 (1.7)
Aspartate aminotransferase increased	5 (1.7)	6 (2.0)
Dermatitis allergic	5 (1.7)	0
Immune-mediated pneumonitis	5 (1.7)	2 (0.7)
Alanine aminotransferase increased	4 (1.3)	7 (2.4)
Blood creatinine increased	4 (1.3)	6 (2.0)
Blood urea increased	4 (1.3)	3 (1.0)
Cough	4 (1.3)	1 (0.3)
Pyrexia	4 (1.3)	3 (1.0)
Hypersensitivity	3 (1.0)	0
Adrenal insufficiency	3 (1.0)	0
Bilirubin conjugated increased	3 (1.0)	4 (1.3)
Thyroxine free increased	3 (1.0)	2 (0.7)
Thyroxine free decreased	3 (1.0)	1 (0.3)
Occult blood positive	3 (1.0)	0
Drug eruption	3 (1.0)	0

eTable 9. Immune-related adverse events. (Continued)

	Camrelizumab-chemotherapy (N = 298)	Placebo-chemotherapy (N = 297)
Productive cough	3 (1.0)	0
Asthenia	3 (1.0)	4 (1.3)
Hematuria	3 (1.0)	1 (0.3)
Blood bilirubin increased	1 (0.3)	3 (1.0)
Death from unknown cause	1 (0.3)	3 (1.0)

Data are n (%).

eTable 10. Baseline values and least squares mean score changes from baseline of the EORTC QLQ-C30.

	Camrelizumab-chemotherapy (N = 298)	Placebo-chemotherapy (N = 298)	Difference of least squares mean, two-sided *P* value
Global health status			
Baseline	68.8±20.2	67.4±19.1	
Score change	0.5 (-2.6 to 3.6)	-2.1 (-5.3 to 1.1)	2.6 (0.0 to 5.2), 0.05
Function (EORTC QLQ-C30 questionnaire scores)			
Physical functioning			
Baseline	92.0±10.7	90.9±11.1	
Score change	-6.9 (-9.4 to -4.3)	-7.8 (-10.5 to -5.2)	1.0 (-1.1 to 3.1), 0.36
Role functioning			
Baseline	92.7±13.9	91.8±14.8	
Score change	-4.2 (-7.3 to -1.1)	-6.4 (-9.6 to -3.3)	2.3 (-0.3 to 4.8). 0.09
Emotional functioning			
Baseline	89.8±13.2	89.2±13.4	
Score change	-0.8 (-3.2 to 1.5)	-1.7 (-4.0 to 0.7)	0.8 (-1.1 to 2.8), 0.40
Cognitive functioning			
Baseline	91.5±13.8	91.8±11.6	
Score change	-1.9 (-4.2 to 0.5)	-1.8 (-4.2 to 0.6)	-0.1 (-2.0 to 1.9), 0.95
Social functioning			
Baseline	79.6±23.6	80.5±20.4	
Score change	-4.7 (-8.3 to -1.1)	-6.4 (-10.1 to -2.6)	1.7 (-1.4 to 4.7), 0.28
Constitutional cancer symptoms (EORTC QLQ-C30 questionnaire scores)			
Fatigue			
Baseline	18.4±18.3	19.3±17.5	
Score change	5.0 (1.9 to 8.2)	6.5 (3.3 to 9.6)	-1.4 (-4.0 to 1.2), 0.28
Nausea and vomiting			
Baseline	5.1±12.0	5.8±11.9	
Score change	2.3 (-0.4 to 4.9)	4.2 (1.5 to 6.9)	-1.9 (-4.1 to 0.3), 0.09

eTable 10. Baseline values and least squares mean score changes from baseline of the EORTC QLQ-C30 (Continued)

	Camrelizumab-chemotherapy (N = 298)	Placebo-chemotherapy (N = 298)	Difference of least squares mean, two-sided *P* value
Pain			
Baseline	16.5±20.1	18.1±19.3	
Score change	-5.0 (-7.7 to -2.4)	-1.9 (-4.7 to 0.8)	-3.1 (-5.3 to -0.9), 0.006
Dyspnea			
Baseline	8.7±15.2	10.9±19.1	
Score change	1.9 (-1.0 to 4.7)	3.6 (0.7 to 6.5)	-1.7 (-4.1 to 0.7), 0.16
Insomnia			
Baseline	13.4±22.0	13.0±20.2	
Score change	-2.3 (-5.2 to 0.6)	-0.4 (-3.3 to 2.6)	-1.9 (-4.3 to 0.5), 0.12
Appetite loss			
Baseline	13.5±22.7	15.4±23.3	
Score change	2.3 (-1.2 to 5.7)	4.5 (1.0 to 8.1)	-2.3 (-5.2 to 0.6), 0.13
Constipation			
Baseline	9.5±17.6	11.6±19.9	
Score change	-0.8 (-3.7 to 2.1)	0 (-3.0 to 3.0)	-0.8 (-3.2 to 1.7), 0.53
Diarrhea			
Baseline	5.0±12.3	4.6±14.2	
Score change	-1.2 (-2.8 to 0.5)	-1.6 (-3.3 to 0.1)	0.5 (-1.0 to 1.8), 0.53
Financial difficulties			
Baseline	34.9±30.8	37.7±32.2	
Score change	3.5 (-0.9 to 7.8)	1.4 (-3.1 to 5.8)	2.1 (-1.5 to 5.7), 0.25

Data are mean ± standard deviation of baseline, and least squares mean (95% CI), difference of least squares mean (95% CI), and two-sided *P* value of score change.

eTable 10. Baseline values and least squares mean score changes from baseline of the EORTC QLQ-C30. (Continued)

Between-group differences of change from baseline to week 36 in the QLQ-C30 and QLQ-OES18 scores were assessed using mixed model repeated measures, with the score at baseline as covariate, randomization factors, treatment group, visit, treatment group multiplied by visit as fixed effects, and patients as random effect, with compound symmetry covariance structure. Detailed descriptions of quality of life are provided in statistical analysis plan.

Abbreviation: EORTC QLQ-C30, The European Organization for Research and Treatment of Cancer quality of life questionnaire Core 30.

eTable 11. Baseline values and least squares mean score changes from baseline of the EORTC QLQ-OES18.

	Camrelizumab-chemotherapy (N = 298)	Placebo-chemotherapy (N = 298)	Difference of least squares mean, two-sided *P* value
Esophageal cancer specific symptoms (EORTC QLQ-OES18 questionnaire scores)			
Dysphagia			
Baseline	26.9±27.9	26.4±27.0	
Score change	0.1 (-4.0 to 4.1)	2.1 (-2.1 to 6.3)	-2.1 (-5.4 to 1.3), 0.23
Trouble swallowing saliva			
Baseline	9.8±20.7	8.6±17.8	
Score change	-3.8 (-6.1 to -1.5)	-1.6 (-4.0 to 0.8)	-2.2 (-4.1 to -0.3), 0.03
Choked when swallowing			
Baseline	20.7±26.3	22.5±23.0	
Score change	-9.7 (-12.7 to -6.7)	-6.3 (-9.4 to -3.2)	-3.4 (-5.9 to -0.8), 0.009
Eating			
Baseline	16.7±18.8	16.6±17.9	
Score change	-3.6 (-6.1 to -1.1)	-0.8 (-3.4 to 1.7)	-2.8 (-4.8 to -0.7), 0.009
Dry mouth			
Baseline	16.8±22.3	18.7±22.9	
Score change	-0.8 (-3.7 to 2.2)	-0.1 (-3.1 to 3.0)	-0.7 (-3.2 to 1.8), 0.59
Trouble with taste			
Baseline	9.3±17.7	9.2±17.9	
Score change	1.5 (-1.7 to 4.7)	1.4 (-1.9 to 4.8)	0.1 (-2.6 to 2.8), 0.96

eTable 11. Baseline values and least squares mean score changes from baseline of the EORTC QLQ-OES18. (Continued)

	Camrelizumab-chemotherapy (N = 298)	Placebo-chemotherapy (N = 298)	Difference of least squares mean, two-sided *P* value
Trouble with coughing			
Baseline	11.0±20.6	10.5±18.8	
Score change	-3.9 (-6.4 to -1.3)	-2.7 (-5.3 to -0.2)	-1.1 (-3.2 to 1.0), 0.30
Trouble talking			
Baseline	8.1±18.8	7.4±17.3	
Score change	-2.5 (-5.0 to 0)	-1.3 (-3.9 to 1.3)	-1.2 (-3.3 to 0.9), 0.25
Reflux			
Baseline	12.9±18.3	12.8±16.8	
Score change	-2.8 (-5.3 to -0.3)	-1.9 (-4.4 to 0.7)	-0.9 (-3.0 to 1.2), 0.40
Pain			
Baseline	11.7±15.0	12.4±13.6	
Score change	-5.6 (-7.5 to -3.6)	-4.0 (-6.0 to -2.0)	-1.6 (-3.2 to 0.1), 0.06

Data are mean ± standard deviation of baseline, and least squares mean (95% CI), difference of least squares mean (95% CI), and two-sided *P* value of score change.

Between-group differences of change from baseline to week 36 in the QLQ-C30 and QLQ-OES18 scores were assessed using mixed model repeated measures, with the score at baseline as covariate, randomization factors, treatment group, visit, treatment group multiplied by visit as fixed effects, and patients as random effect, with compound symmetry covariance structure. Detailed descriptions of quality of life are provided in statistical analysis plan.

Abbreviation: EORTC QLQ-OES18, The European Organization for Research and Treatment of Cancer quality of life questionnaire with an esophageal module.