

# The efficacy and safety of esophagectomy in elderly patients with esophageal cancer



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## Introduction

### 1. Performing esophagectomy on elderly patients

- The incidence of cancer is increasing among the elderly
- 74% of patients are diagnosed with esophageal cancer at their "60's and 70's" in Japan (Tachimori Y, et al. Esophagus. 2019;16(3):221-245).
- Esophagectomy is the first choice for patients with resectable esophageal carcinoma (The Japan Esophageal Society . Guidelines for Diagnosis and Treatment of Carcinoma of the Esophagus 2017).
- Although surgical practice has advanced, surgeons are more reluctant to perform surgery for elderly patients because of their comorbidity. (Baranov NS, et al. J Gastrointest Surg. 2019;23(7):1293-1300).

### 2. Treatment strategy in our institution

Minimizing invasiveness of surgery



Make perioperative management throughly

- Surgery has been performed to resectable esophageal carcinoma when ASA-PS is lower than 2 regardless to age.

### 3. The purpose of this study

- Assess the efficacy and safety of esophagectomy in the elderly with esophageal cancer.

## Materials and methods

Patients who were performed esophagectomy  
2004/1~2020/12 (n = 625)

<80 years

Control (n = 612)

≥80 years

Elderly (n = 13)

- Analyze the perioperative characteristics and prognosis of elderly patients with esophageal carcinoma to those of non-elderly patients

## Result

### Clinical characteristics

	Patients <80 years n = 612 (%)	Patients ≥80 years n = 13 (%)	P value
Age (range)	65 (34-79)	80 (80-85)	<0.001
Sex			0.873
Male/Female	528/84	12/1	
Location (%)			0.169
Ce	4 (0.01)	0 (0)	
Ut	79 (13)	1 (7)	
Mt	406 (66)	7 (53)	
Lt	123 (20)	5 (40)	
Clinical Stage (TNM 8th)			
cT1/2/3/4a/4b	231/155/176/13/35	4/3/6/0/0	0.611
cN0/1/2/3	286/217/102/7	9/3/1/0	0.385
cM0/1	594/18	13/0	0.5
cStageI/II/III/IVA/IVB	211/192/139/50/20	3/6/4/0/0	0.81

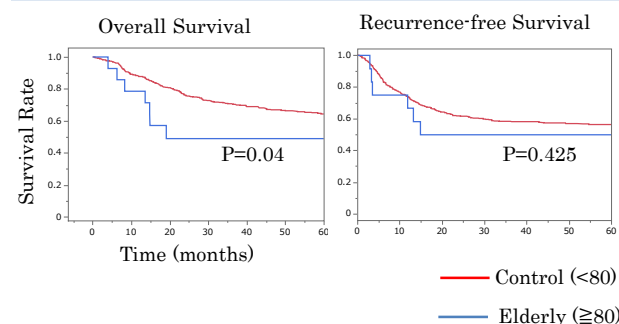
### Preoperative therapy

None	239 (40)	12 (92)	<0.001
CT	274 (45)	1 (8)	
CRT	54 (8)	0 (0)	
ESD	45 (7)	0 (0)	0.819
Histology (%)			0.319
Squamous cell carcinoma	560 (91)	12 (92)	
Adenocarcinoma	40 (6)	1 (8)	
Others	12 (3)	0 (0)	
Pathological Stage (TNM 8th)			
pT0/1a/1b/2/3/4a/4b	34/105/239/56/203/8/17/1/1/2/8/0/2		0.012
pN0/1/2/3	353/0/145/98/39	3/6/4/0	0.046
pM0/1	577/35	12/1	0.493
pStage0/I/II/III/IV	21/217/132/160/82	0/2/2/7/2	0.052
Resection			0.604
R0	539 (88)	10 (76)	
R1	61 (10)	2 (15)	
R2	12 (2)	1 (9)	

### Surgical characteristics

	Patients <80 years n = 612 (%)	Patients ≥80 years n = 13 (%)	P value
Operation time [min]	485 (441-551)	435 (357-632)	0.049
Blood loss [ml]	278 (90-325)	295 (76-353)	0.486
Surgical approach			0.309
Thoracoscopic	449 (73)	6 (46)	
Open	133 (21)	6 (46)	
Robot	30 (6)	1 (8)	
Number of field dissected			0.392
3-field dissection	484 (79)	10 (76)	
2-field dissection	128 (21)	3 (24)	
Number of dissected Lymph nodes	55 (39-79)	51 (35-71)	0.651

### Prognosis of the elderly



	Overall Survival rate		Recurrence-free Survival rate	
	Control	Elderly	Control	Elderly
1 year	87.8%	70.8%	73%	58%
3 year	75.0%	48.6%	66.6%	48.0%

## Discussion /Conclusion

- Esophagectomy could be performed feasibly and safely to elderly patients