



2026 World Conference on Lung Cancer

SEPTEMBER 12 – 15, 2026 | SEOUL, REPUBLIC OF KOREA

#1473: Short- and Long-Term Outcomes of Lung Cancer Surgery in Patients Receiving Antiplatelet or Anticoagulant Therapy

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JAPAN

Disclosure

- Honoraria for lectures, presentations, or educational events
MSD, Boehringer Ingelheim, Ethicon, Covidien, Chugai Pharmaceutical, Astellas Pharma, ONO Pharmaceutical, Meiji Seika Pharma, CSL Behring, and AstraZeneca.
- Research grant support
Chugai Pharmaceutical, JSPS KAKENHI and Japan Agency for Medical Research and Development (AMED).

Disclosure

No artificial intelligence (AI) tools were used in the development of this presentation.

INTRODUCTION

- With the growth of the elderly population, the number of patients receiving antiplatelet or anticoagulant therapy is rising.
- Because these patients often have multiple comorbidities, use of these therapies may affect short- and long-term outcomes after lung cancer surgery.
- This study aimed to clarify the perioperative and long-term outcomes of lung cancer surgery in patients receiving antiplatelet or anticoagulant therapy.

METHODS

- We analyzed records of patients who underwent lung cancer surgery in a prospectively maintained database from two institutions.
- We assessed the following variables: (1) demographics (age, sex, smoking status, body mass index, tumor markers, comorbidities, **prescribed antiplatelet or anticoagulant drugs**, pulmonary function tests), (2) stage, (3) surgical procedures, (4) pathological findings, (5) postoperative complications, (6) surgical outcomes (operative time, blood loss, need for blood transfusion), (7) short-term outcomes (re-exploration for bleeding, postoperative hospital stay, duration of chest tube drainage), and postoperative prognosis.

Patients with lung cancer who underwent surgery,
5/2004–1/2024 (N = 3471)

Excluded

- Data N/A
- Metachronous multiple lung cancer
- Preoperative therapy
- R2 resection

Analytic cohort, n = 1906

RESULTS

Patient characteristics according to anti-platelet or anti-coagulant therapies

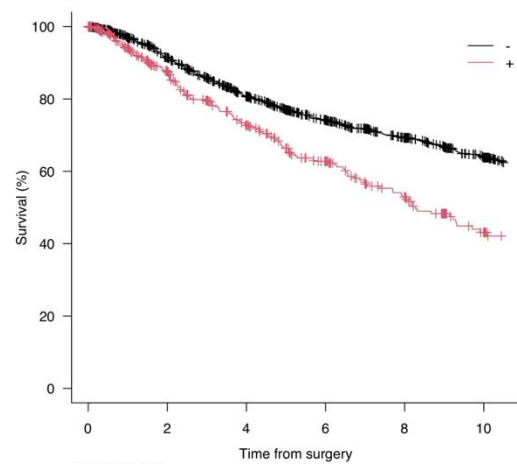
Variables	Treatment +, n = 452 (23.7%)	Treatment -, n = 1454 (76.3%)	p
	n (%) or median (IQR)	n (%) or median (IQR)	
Age	76 (70–80)	70 (64 – 76)	<0.001
Male / Female	341 (75.4) / 111 (24.6)	838 (57.6) / 616 (42.4)	<0.001
Charlson comorbidity index	2 (1 – 3)	0 (0 – 2)	<0.001
Smoking index	720 (25 - 1080)	400 (0 - 900)	<0.001
CEA (ng/ml)	3.3 (2.2 – 4.9)	2.9 (1.9 – 4.8)	0.849
Surgical side, R / L	288 (63.7) / 164 (36.3)	881 (60.6) / 573 (39.4)	0.232
FVC (L)	3.12 (2.59 – 3.67)	3.14 (2.60 – 3.70)	0.606
%FVC (%)	103.8 (92.3 – 114.5)	107.2 (96.3 – 117.6)	<0.001
FEV1 (L)	2.17 (1.80 – 2.57)	2.23 (1.84 – 2.67)	0.015
FEV1% (%)	72.0 (65.5 – 77.6)	73.9 (66.9 – 79.0)	0.004
Body mass index	23.5 (21.3 – 25.7)	22.7 (20.6 – 24.9)	<0.001
SUVmax	4.21 (1.93 – 9.43)	4.18 (1.79 – 8.97)	0.968

Perioperative outcomes of lung cancer surgery in patients receiving antiplatelet or anticoagulant therapy

Outcomes	Treatment +, n = 452 (23.7%)	Treatment -, n = 1454 (76.3%)	p
	n (%) or median (IQR)	n (%) or median (IQR)	
Procedure, L / S / W / P	272 (60.2) / 74 (16.4) / 104 (23.0) / 2 (0.4)	1034 (71.1) / 247 (17.0) / 158 (10.9) / 15 (1.0)	<0.001
Sublobar resection, Y / N	178 (39.4) / 274 (60.6)	405 (27.9) / 1049 (72.1)	<0.001
Lymph node dissection, mediastinal / hilar	224 (49.6) / 228 (50.4)	991 (68.2) / 463 (31.8)	<0.001
Postoperative stay, days	4 (4 – 8)	5 (4 – 8)	0.810
Duration of chest tube drainage, days	1 (1 – 2)	2 (1 – 2)	0.754
Operative time, minutes	148 (110 – 187)	155 (125 – 189)	0.027
Blood loss, g	15 (0 – 51)	17 (3 – 48)	0.198
Blood transfusion, + / -	6 (1.3) / 446 (98.7)	17 (1.2) / 1437 (98.8)	0.790
Re-exploration for bleeding, + / -	7 (1.6) / 445 (98.5)	3 (0.2) / 1451 (99.8)	0.003
Postoperative complications, ≥Grade 2, + / -	103 (22.8) / 349 (77.2)	259 (17.8) / 1195 (82.2)	0.021
90 days mortality, + / -	5 (0.3) / 1449 (99.7)	3 (0.7) / 449 (99.3)	0.404

IQR: interquartile range; CEA: carcinoembryonic antigen; FVC: forced vital capacity; FEV1: forced expiratory volume in 1 s; FEV1%: forced expiratory volume as a percentage of forced vital capacity; SUV: standardized uptake value.

L: Lobectomy; S: Segmentectomy; W: Wedge resection, P: Pneumonectomy

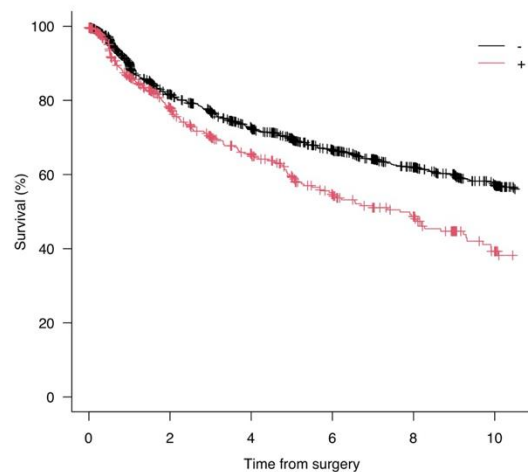


All patients

Overall survival according to anti-platelet or anti-coagulant therapy

Anti-platelet or Anti-coagulant therapy	5-year survival	10-year survival	P
+	66.3	43.1	<0.001
-	77.0	63.8	

Number at risk						
	0	2	4	6	8	10
-	1454	1057	791	572	401	278
+	452	306	204	130	87	47

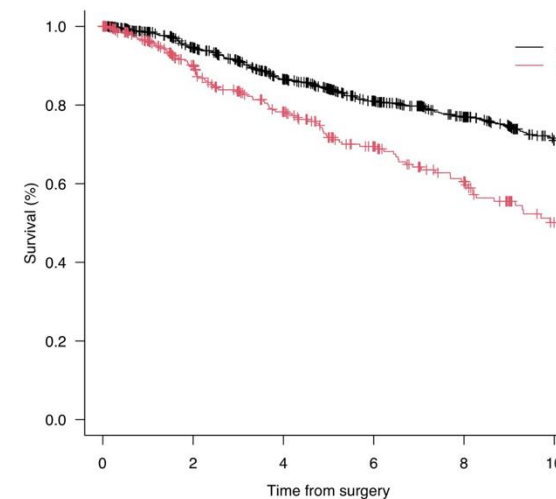


All patients

Disease-free survival according to anti-platelet or anti-coagulant therapy

Anti-platelet or Anti-coagulant therapy	5-year disease-free survival	10-year disease-free survival	P
+	59.2	39.3	<0.001
-	69.8	39.3	

Number at risk						
	0	2	4	6	8	10
-	1454	944	724	523	366	252
+	452	273	182	113	80	41

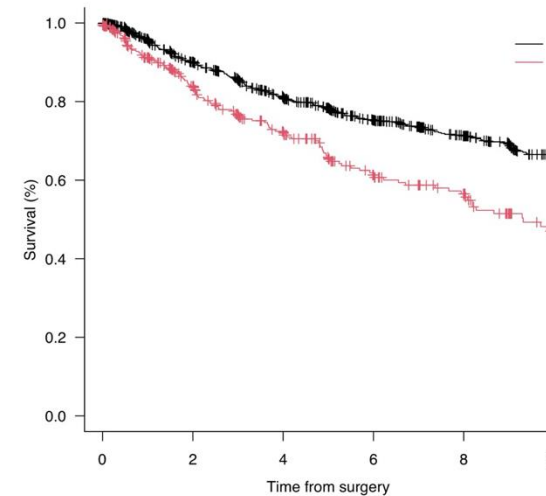


Patients with pStage 0- I

Overall survival according to anti-platelet or anti-coagulant therapy

Anti-platelet or Anti-coagulant therapy	5-year survival	10-year survival	P
+	71.9	48.7	<0.001
-	84.1	71.0	

Number at risk						
	0	2	4	6	8	10
-	1129	842	653	479	338	234
+	361	252	173	114	79	44



Patients with pStage 0- I

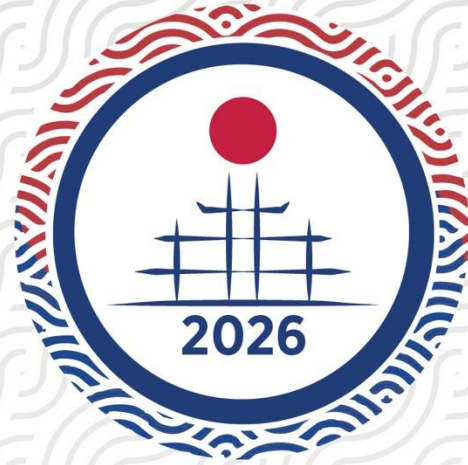
Disease-free survival according to anti-platelet or anti-coagulant therapy

Anti-platelet or Anti-coagulant therapy	5-year survival	10-year survival	P
+	65.3	47.0	<0.001
-	78.4	65.1	

Number at risk						
	0	2	4	6	8	10
-	1129	802	619	451	317	215
+	361	234	157	101	74	40

CONCLUSIONS

- Patients receiving antiplatelet or anticoagulant therapy had shorter operative times and a higher proportion of sublobar resection compared with those not receiving those therapies.
- Significant differences were observed in the incidence of postoperative complications, and overall survival was lower in patients receiving antiplatelet or anticoagulant therapy.



Thank You.●