

**Figure S1** Study flowchart.

**Table S1** Thirty-day postoperative complications in patients with and without preoperative COVID-19

Comorbidities	Total sample (N=1,734)	History of COVID-19 (N=1,496)	No history of COVID-19 (N=238)	P value
Arrhythmia	32 (1.8)	26 (1.7)	6 (2.5)	0.57
Asthma	14 (0.8)	11 (0.7)	3 (1.3)	0.65
Chronic kidney disease	21 (1.2)	19 (1.3)	2 (0.8)	0.81
Chronic obstructive pulmonary disease	21 (1.2)	17 (1.1)	4 (1.7)	0.69
Cerebrovascular disease	59 (3.4)	47 (3.1)	12 (5.0)	0.13
Coronary artery disease	48 (2.8)	41 (2.7)	7 (2.9)	0.86
Depression	3 (0.2)	2 (0.1)	1 (0.4)	0.88
Diabetes	147 (8.5)	114 (7.6)	33 (13.9)	0.001
Hypertension	488 (28.1)	413 (27.6)	75 (31.5)	0.04
Hyperlipidemia	47 (2.7)	38 (2.5)	9 (3.8)	0.27
Liver disease	49 (2.8)	45 (3.0)	4 (1.7)	0.25

Data are presented as n (%).

**Table S2** Logistic regression models showing variables independently associated with postoperative complication in patients with and without a history of COVID-19

Characteristic	OR	95% confidence interval	P value
History of COVID-19			
No	1 (Reference)		
Yes	0.99	0.63–1.60	0.96
Sex			
Female	1 (Reference)		
Male	1.18	0.79–1.74	0.42
Age	0.99	0.96–1.03	0.77
Smoking history			
Never smoked	1 (Reference)		
Smoker	1.94	1.21–3.09	0.01
Vaccination status			
Non-fully vaccinated	1 (Reference)		
Fully vaccinated	0.69	0.43–1.14	0.13
CCI			
0	1 (Reference)		
1	1.32	0.61–2.91	0.48
2	2.88	1.09–7.76	0.04
3+	2.55	0.77–8.52	0.13
Clinical TNM staging			
IA1	1 (Reference)		
IA2	1.22	0.77–1.96	0.40
IA3	1.46	0.81–2.62	0.20
IB	3.05	1.33–6.82	0.01
IIA	3.25	1.18–8.57	0.02
IIB	0.88	0.05–5.17	0.91
Surgery type			
Wedge resection	1 (Reference)		
Segmentectomy	1.97	1.20–3.30	0.01
Lobectomy	3.64	2.23–6.08	<0.001

**Table S3** Comparison of perioperative outcomes in the PSM sample based on the history of COVID-19

Characteristic	History of COVID-19 (N=232)	No history of COVID-19 (N=232)	P value
Total hospital stay (days)	7 [6–9]	7 [6–9]	0.37
Postoperative hospital stay (days)	3 [3–5]	3 [3–4]	0.67
Chest tube duration (days)	3 [2–4]	3 [2–4]	0.99
Chest tube drainage (mL)	258 [130–488]	288 [136–590]	0.44
Postoperative complications	26 (11.2)	27 (11.6)	0.89
Clavien Dindo grade I–II	17 (7.3)	21 (9.1)	0.50
Clavien Dindo grade III–IV	9 (3.9)	6 (2.6)	0.43
Clavien Dindo grade V	0 (0)	0 (0)	–

Data are presented as median [interquartile range] or n (%).

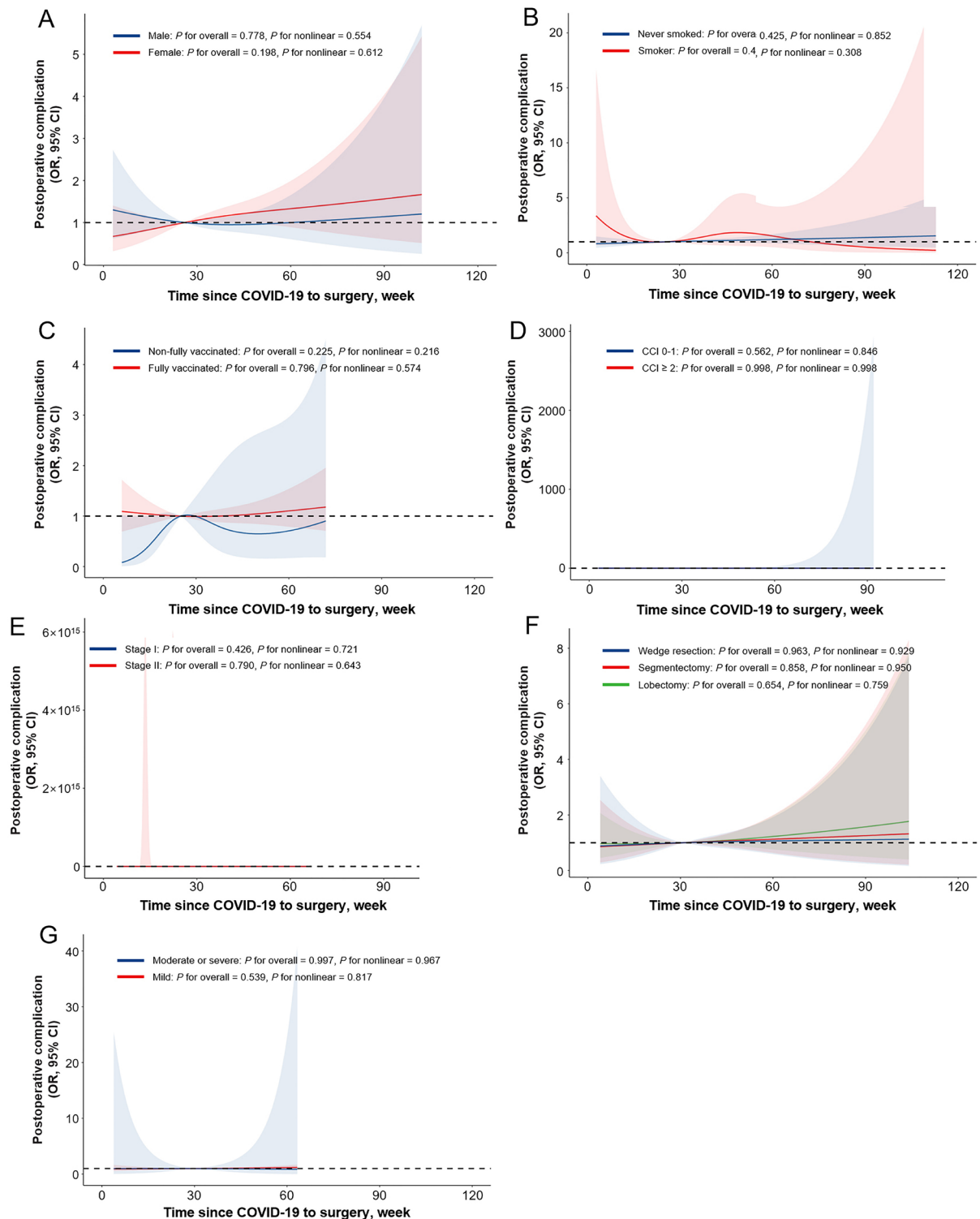
**Table S4** Infection time of last COVID-19 in patients with a history of COVID-19 (N=1,496)

Time of last COVID-19	N (%)
Before November 2022	107 (7.2)
November 2022	54 (3.6)
December 2022	919 (61.4)
January 2023	132 (8.8)
February 2023	24 (1.6)
After February 2023	260 (17.4)

**Table S5** Postoperative complication rates by time since COVID-19 to surgery

Time interval	Number of patients	Complication rate
≤8 weeks	147	10.9% (16/147)
>8–16 weeks	292	7.9% (23/292)
>16–24 weeks	256	9.8% (25/256)
>24 weeks	801	9.1% (73/801)

COVID-19, coronavirus disease 2019.



**Figure S2** Multivariable-adjusted association of time since COVID-19 to surgery with risk of postoperative complication stratified by sex (A), smoking history (B), vaccination status (C), CCI (D), clinical TNM staging (E), surgery type (F), and severity of COVID-19 (G). Association was depicted as restricted cubic splines and 95% CI.