Table S1 Logistic regression analysis in the fast-firing mode group to identify predictors of prolonged exudative bleeding (≥15 s)

Variables	Univariable analysis			Multivariable analysis		
	OR	95% CI	P value	OR	95% CI	P value
Age, ≥73 *vs.* < 73 years	0.34	0.14-0.77	0.01	0.41	0.15-1.08	0.08
Sex, Male *vs.* Female	1.51	0.65-3.64	0.35			
Surgical side, Right *vs.* Left	0.80	0.35-1.82	0.60			
Smoking, ≥20 *vs.* <20 pack-years	1.08	0.48-2.46	0.86			
Oral antithrombotic therapy, Yes *vs.* No	1.59	0.56-4.31	0.37			
Vessels, PA *vs.* PV	6.37	2.24-23.07	0.001	8.77	2.51-32.76	<0.001
Diameter, <10 *vs.* ≥10 mm	1.99	0.85-4.66	0.11	1.61	0.55-4.72	0.39
Lifting, Yes *vs.* No	1.96	0.86-4.51	0.11	4.82	1.55-15.71	0.007
Traction of the lung, Yes *vs.* No	4.50	1.65-12.89	0.004	7.89	2.10-34.40	0.003

Variables in the multivariable analysis were selected based on univariable P < 0.25. Logistic regression analysis in the fast-firing mode group to identify predictors of exudative bleeding lasting ≥15 seconds after pulmonary vascular transection. CI, confidence interval; OR, odds ratio; PA, pulmonary artery; PV, pulmonary vein.

Table S2 Logistic regression analysis in the slow-firing mode group to identify predictors of prolonged exudative bleeding (≥15 sec)

Variables	Univariable analysis			Multivariable analysis		
	OR	95% CI	P value	OR	95% CI	P value
Age, ≥73 *vs.* < 73 years	0.85	0.38-1.88	0.69			
Sex, Male *vs.* Female	0.67	0.30-1.50	0.32			
Surgical side, Right *vs.* Left	1.20	0.54-2.70	0.66			
Smoking, ≥20 *vs.* <20 pack-years	1.47	0.67-3.31	0.34			
Oral antithrombotic use, Yes *vs.* No	1.18	0.37-3.24	0.76			
Vessels, PA *vs.* PV	6.72	2.24-29.08	0.003	5.95	1.89-26.50	0.006
Diameter, <10 *vs.* ≥10 mm	3.20	1.43-7.33	0.005	2.37	1.00-5.69	0.05
Lifting, Yes *vs.* No	3.00	1.29-6.92	0.001	3.19	1.30-7.91	0.01
Traction of the lung, Yes *vs.* No	1.01	0.37-2.47	0.99			

Variables in the multivariable analysis were selected based on univariable P < 0.25. Logistic regression analysis in the slow-firing mode group to identify predictors of exudative bleeding lasting ≥15 seconds after pulmonary vascular transection. OR, odds ratio; CI, confidence interval; PA, pulmonary artery; PV, pulmonary vein.

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Table S3 Logistic regression analysis to evaluate exudative bleeding in PA

Variables	Univariable analysis			Multivariable analysis		
	OR	95% CI	P value	OR	95% CI	P value
Slow *vs.* Fast	0.46	0.24-0.87	0.02	0.49	0.24-1.02	0.06
Age, ≥73 *vs.* < 73 years	0.53	0.28-1.00	0.05	0.58	0.28-1.19	0.14
Sex, Male *vs.* Female	1.04	0.55-2.02	0.90			
Surgical side, Right *vs.* Left	1.05	0.56-1.98	0.88			
Smoking, ≥20 *vs.* <20 pack-years	1.66	0.88-3.18	0.12	1.93	0.93-4.10	0.08
Oral antithrombotic use, Yes *vs.* No	1.40	0.62-3.11	0.41			
Diameter, <10 *vs.* ≥10 mm	1.96	1.04-3.75	0.04	2.15	1.03-4.56	0.04
Lifting, Yes *vs.* No	3.22	1.64-6.39	0.001	4.45	2.04-10.06	<0.001
Traction of the lung, Yes *vs.* No	2.74	1.26-5.99	0.01	5.12	2.04-13.34	<0.001

Variables with P < 0.25 in the univariable analysis were included in the multivariable model. Multivariable logistic regression analysis was performed for cases undergoing pulmonary artery stapling. CI, confidence interval; OR, odds ratio; PA, pulmonary artery.

Table S4 Logistic regression analysis for predictors of exudative bleeding in PV

Variables	Univariable analysis			Multivariable analysis		
	OR	95% CI	P value	OR	95% CI	P value
Slow *vs.* Fast	0.43	0.08-2.07	0.29			
Age, ≥73 *vs.* < 73 years	0.67	0.13-3.22	0.62			
Sex, Male *vs.* Female	0.50	0.09-2.37	0.38			
Surgical side, Right *vs.* Left	3.96	0.64-76.49	0.21	5.43	0.83-107.96	0.13
Smoking, ≥20 *vs.* <20 pack-years	0.36	0.05-1.76	0.23	0.28	0.04-1.45	0.16
Oral antithrombotic use, Yes *vs.* No	1.03	0.05-6.71	0.98			
Diameter, <10 *vs.* ≥10 mm	1.67	0.23-8.45	0.56			
Lifting, Yes *vs.* No	2.94	0.61-15.75	0.18	3.67	0.73-20.90	0.12
Traction of the lung, Yes *vs.* No	1.15	0.16-5.73	0.87			

Variables with P < 0.25 in the univariable analysis were included in the multivariable model. Multivariable logistic regression analysis was performed for cases undergoing pulmonary vein stapling. CI, confidence interval; OR, odds ratio; PV, pulmonary vein.

Table S5 Sensitivity analysis using multivariable logistic regression excluding "Lifting"

Variable	OR	95% CI	P value
Slow *vs.* Fast	0.41	0.22-0.75	0.004
Age, ≥73 *vs.* <73 years	0.57	0.30-1.08	0.08
Vessels, PA *vs.* PV	6.83	3.02-17.76	<0.001
Diameter <10 *vs.* ≥10 mm	1.69	0.90-3.19	0.10
Traction, Yes *vs.* No	2.23	1.07-4.61	0.03

A sensitivity analysis was performed using multivariable logistic regression excluding the variable "Lifting". CI, confidence interval; OR, odds ratio; PA, pulmonary artery; PV, pulmonary vein.

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Table S6 Sensitivity analysis including Medium-firing mode as Fast-firing

Variable	OR	95% CI	P value
Slow *vs.* Fast (Medium included)	0.47	0.25-0.87	0.02
Age, ≥73 *vs.* <73 years	0.58	0.31-1.08	0.09
Vessels, PA *vs.* PV	8.06	3.62-20.20	<0.001
Diameter <10 *vs.* ≥10 mm	1.75	0.92-3.34	0.09
Lifting, Yes *vs.* No	4.74	2.41-9.61	<0.001
Traction, Yes *vs.* No	3.87	1.78-8.57	<0.001

A sensitivity analysis including Medium-firing mode cases reclassified as Fast-firing was performed using multivariable logistic regression. CI, confidence interval; OR, odds ratio; PA, pulmonary artery; PV, pulmonary vein.

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