Figure S1 ASD plot before and after propensity score matching. An ASD <0.25 implies a good balance between the two groups. ASD, absolute standardized difference; CKD, chronic kidney disease; NYHA, New York Heart Association.
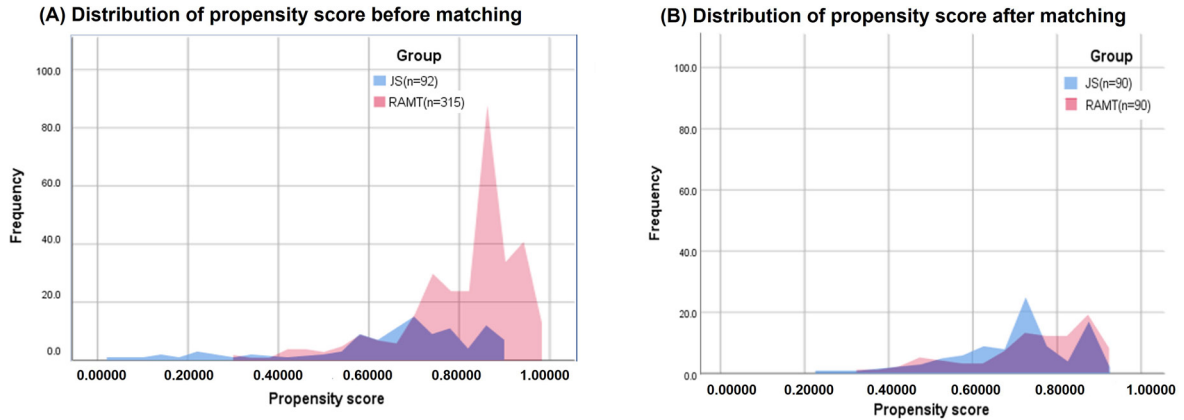

Figure S2 Distribution of propensity score before (A) and after (B) 1:1 matching. JS, J-sternotomy; RAMT, right anterior mini-thoracotomy.

Table S1 Postoperative outcomes with IPTW P value

Variables	JS (n=92)	RAMT (n=315)	P value	IPTW P value
Mortality	12 (13.0)	16 (5.1)	0.008[§]	0.0499[&]
30-day mortality	1 (1.1)	1 (0.3)	0.401[¶]	0.221[&]
Acute renal failure	3 (3.3)	3 (1.0)	0.132[¶]	0.190[&]
On-table extubation	28 (30.4)	220 (69.8)	<0.001[§]	<0.001[&]
Prolonged ventilation	4 (4.3)	2 (0.6)	0.026[¶]	0.106[&]
Pneumonia	3 (3.3)	2 (0.6)	0.079[¶]	0.627[&]
Stroke	2 (2.2)	0	0.051[¶]	0.112[‖]
Mechanical support	0	0	–	–
LCOS	14 (15.2)	35 (11.1)	0.287[§]	0.100[&]
Atrioventricular block	3 (3.3)	14 (4.4)	0.773[¶]	0.284[&]
Pacemaker insertion	3 (3.3)	5 (1.6)	0.388[¶]	0.609[&]
Bleeding reoperation	0	11 (3.5)	0.134[¶]	0.178[‖]
Chest tube drain 2 h (mL)	368.4±311.3	304.3±248.5	0.050[‡]	0.087[#]
	279.5 (187.8–419.8)	240.0 (157.0–355.0)		
Need for transfusion	54 (58.7)	88 (27.9)	<0.001[§]	<0.001[&]
ICU stay (h)	40.7±85.3	31.3±65.9	0.574[‡]	0.822[#]
	25.0 (23.0–27.0)	24.0 (2.0–26.0)		
Hospital stay (days)	7.3±3.8	6.2±3.3	<0.001[‡]	0.020[#]
	6.0 (5.0–7.0)	5.0 (4.0–7.0)		

Values are either frequency with percentage in parentheses, mean ± standard deviation or median (IQR). Shapiro-Wilk's test was employed for test of normality assumption. [‡], P values were derived from Mann-Whitney's *U* test; [§], P values were derived by Chi-squared test; [¶], P values were derived from Fisher's exact test; [#], P values were derived from IPTW-weighted linear regression analysis; [‖], P values were derived from IPTW-weighted logistic regression analysis with Firth's penalized maximum likelihood bias reduction method. IPTW, inverse probability of treatment weighting; LCOS, low cardiac output syndrome; ICU, intensive care unit; IQR, interquartile range; JS, J-sternotomy; RAMT, right anterior mini-thoracotomy.
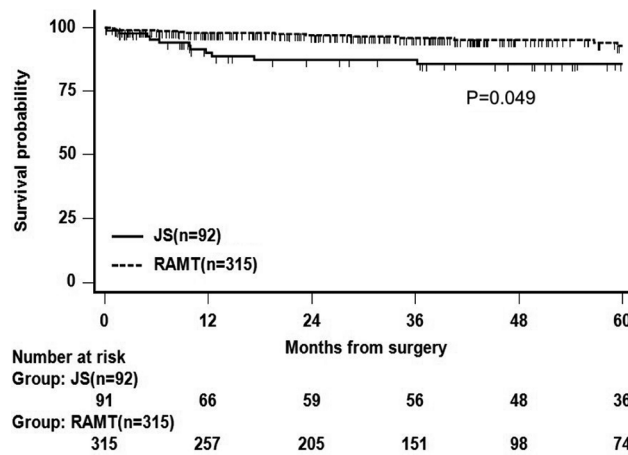
Figure S3 Kaplan-Meier curve with IPTW-adjusted data. Kaplan-Meier survival curves with IPTW-adjusted data also show significantly higher rates of survival probability for the RAMT group compared with the JS group (P=0.049). JS, J-sternotomy; RAMT, right anterior mini-thoracotomy; IPTW, inverse probability of treatment weighting.