

Figure S1 Definition of high- and low-dose group. Patients were divided into two groups according to preoperative diuretic dose, calculated as furosemide equivalents. A dose greater than 40 mg/day was defined as high dose, while 40 mg/day or less was defined as low dose. Representative examples of typical medication patterns in each group are illustrated.

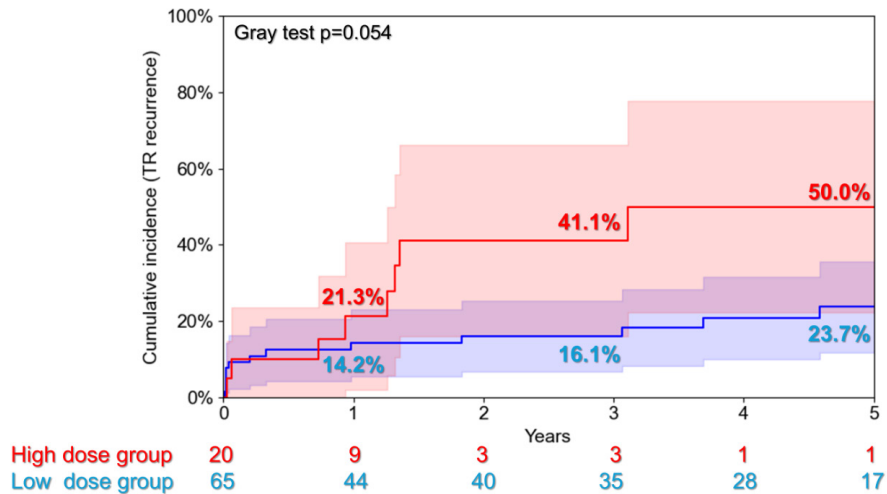


Figure S2 Competing risk analysis for TR recurrence with death as a competing event. Cumulative incidence functions for TR recurrence over 5 years are shown for the high-dose diuretic group (red) and low-dose diuretic group (blue) using the Fine-Gray competing risk approach, with death treated as a competing event. Shaded areas represent 95% confidence intervals. Gray's test was used to compare groups (P=0.054). TR, tricuspid regurgitation.

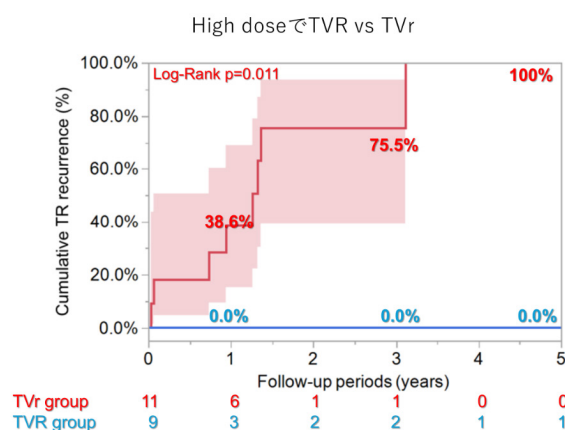


Figure S3 TR recurrence after isolated tricuspid valve surgery in the high-dose group, stratified by procedure type. A Kaplan-Meier curve shows the cumulative incidence of TR recurrence over 5 years among patients in the high-dose diuretic group, comparing TVr; red versus TVR; blue. Shaded areas represent 95% confidence intervals. TR, tricuspid regurgitation; TVr, tricuspid valve repair; TVR, tricuspid valve replacement.

Table S1 Univariate and multivariate analyses of predictors of composite adverse outcomes

Variable	Univariable analysis		Multivariable analysis	
	HR (95% CI)	P value	HR (95% CI)*	P value
Age	1.02 (0.99–1.06)	0.230		
Male sex	1.53 (0.73–3.23)	0.260	2.91 (0.81–10.48)	0.103
Atrial fibrillation	1.03 (0.49–2.16)	0.947		
Previous cardiac surgery	0.84 (0.36–1.98)	0.695		
LVEF	0.97 (0.95–1.00)	0.031	0.97 (0.95–1.00)	0.046
TR velocity	1.09 (0.50–2.38)	0.820		
IVC diameter	1.05 (0.98–1.11)	0.145		
Hemoglobin	0.78 (0.67–0.91)	0.001	0.78 (0.65–0.94)	0.007
Na	0.94 (0.87–1.02)	0.168		
eGFR	0.97 (0.95–0.99)	0.008	1.00 (0.97–1.03)	0.997
Albumin	1.02 (0.59–1.79)	0.931		
T-bil	0.88 (0.48–1.61)	0.673		
PT-INR	1.11 (0.60–2.04)	0.745		
MELD-Na score	1.07 (1.00–1.14)	0.067		
TVR	0.68 (0.30–1.54)	0.359		
TAPSE	0.90 (0.82–0.98)	0.020		
RV FAC	0.94 (0.90–0.98)	0.006	0.94 (0.89–1.00)	0.038
TRI-SCORE	1.02 (1.00–1.05)	0.053		
High-dose diuretics	3.46 (1.62–7.37)	0.001	3.70 (1.43–9.56)	0.007

*, adjusted for male sex, LVEF, hemoglobin, MELD-Na score, RV FAC, high-dose diuretics. CI, confidence interval; eGFR, estimated glomerular filtration rate; IVC, inferior vena cava; LVEF, left ventricular ejection fraction; MELD, model for end-stage liver disease; PT-INR, prothrombin time-international normalized ratio; RV FAC, right ventricular fraction area change; TAPSE, tricuspid annular plane systolic excursion; TR, tricuspid regurgitation; TVR, tricuspid valve replacement.

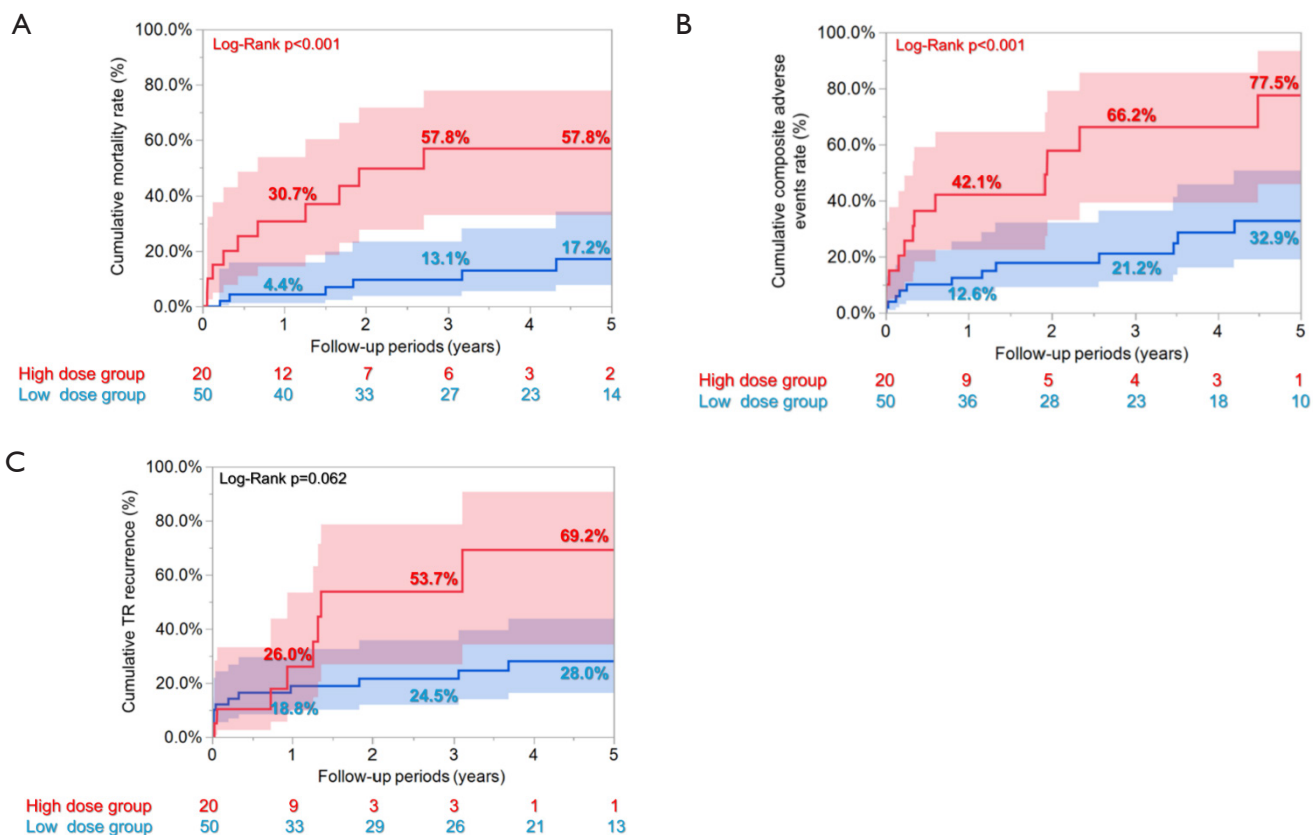


Figure S4 Sensitivity analysis restricted to patients with severe TR: cumulative incidence of outcomes over 5 years. (A) all-cause mortality, (B) the composite adverse outcome, and (C) TR recurrence in the high-dose group (red) and low-dose group (blue). Kaplan-Meier curves are shown with shaded areas representing 95% confidence intervals. The composite adverse outcome was defined as a combination of cardiac death, admission for heart failure, and dialysis initiation. TR, tricuspid regurgitation.