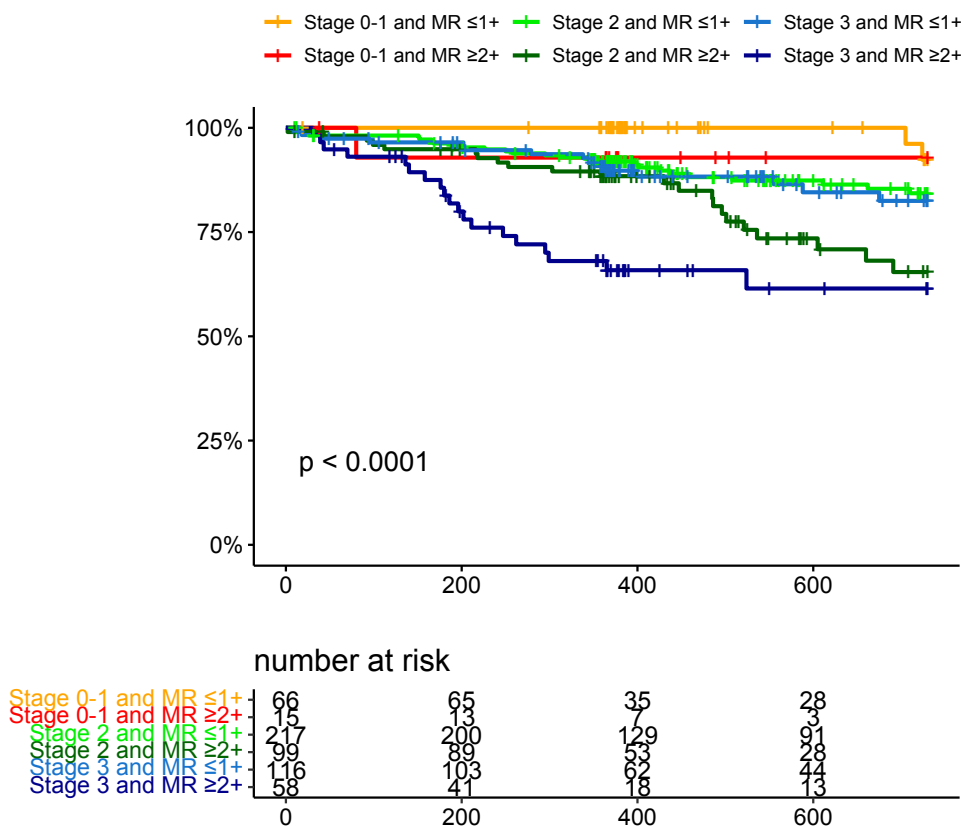


Supplemental Figure 1. Two-year survival according to the extent of cardiac damage and residual MR

All-cause death



Shown are survival curves according to the extent of cardiac damage and residual MR. The superior outcomes of residual MR $\geq 2+$ over residual MR $\leq 1+$ was consistent amongst the staging of cardiac damage, while there was no significant difference in stage 0-1 with the limited sample size.

Abbreviation: MR, mitral regurgitation.

Supplemental Table 1. Procedural findings

	All n=579	Stage 0 or 1 n=84	Stage 2 n=319	Stage 3 n=176	p value
Procedural time	99 ± 47	95 ± 41	100 ± 48	99 ± 50	0.91
Device time	72 ± 44	65 ± 34	75 ± 45	71 ± 45	0.91
Acute procedural success	529 (91.4)	79 (94.0)	289 (90.6)	161 (91.5)	0.64
Number of devices (per patient)	833 (1.5 ± 0.6)	113 (1.3 ± 0.5)	465 (1.5 ± 0.6)	255 (1.5 ± 0.6)	0.08
Type of devices implanted					0.22
MitraClipG2 NT	627 (75.3)	84 (74.3)	359 (77.2)	184 (72.2)	
MitraClipG4 NT	114 (13.7)	11 (9.7)	63 (13.5)	40 (15.6)	
MitraClipG4 NTW	69 (8.2)	14 (12.5)	32 (6.9)	23 (9.0)	
MitraClipG4 XT	9 (1.1)	0	5 (1.1)	4 (1.6)	
MitraClipG4 XTW	14 (1.7)	4 (3.5)	6 (1.3)	4 (1.6)	
TPMG	2.1 ± 1.3	3.1 ± 1.3	3.2 ± 1.8	3.0 ± 1.4	0.19
MR ≤mild after device implantation	399 (68.9)	66 (81.5)	217 (68.7)	116 (66.7)	0.035
Emergency surgery	3 (0.5)	0	2 (0.6)	1 (0.6)	0.64
Acute kidney injury	8 (1.4)	1 (1.2)	2 (0.6)	5 (2.8)	0.14
Length of hospital stay	12 [8, 23]	9 [7, 15]	11 [7, 20]	16 [9, 30]	<0.001

Values are either the number with %, mean ± SD, or median [interquartile range].

Abbreviations: TMPG, transmitral pressure gradient; MR, mitral regurgitation.

Supplemental Table 2. Factors of cardiac damage and residual MR after TEER

	Odds ratio	95%CI	p value
LV end-diastolic diameter	1.01	0.95-1.07	0.78
LV end-systolic diameter	1.06	0.99-1.14	0.09
LV ejection fraction	1.02	0.99-1.06	0.20
LA volume index	1.01	1.00-1.01	0.004
Atrial fibrillation	1.26	0.75-2.14	0.38
TR severe	1.18	0.52-2.66	0.70
TAPSE	1.01	0.97-1.06	0.57
RVFAC	0.99	0.96-1.01	0.24

Abbreviations: TEER, transcatheter edge-to-edge repair; CI, confidence interval; LV, left ventricular; LA, left atrium; TR, tricuspid regurgitation; TAPSE, tricuspid annular plane systolic excursion; RVFAC, right ventricular fractional area change.

Supplemental Table 3. Association of cardiac damage factors with two-year mortality

	Hazard ratio	95%CI	p value
LV end-diastolic diameter			
≤55 mm		Reference	
56 – 60 mm	0.71	0.37 – 1.34	0.29
>60 mm	1.27	0.68 – 2.34	0.46
LV end-systolic diameter			
≤35 mm		Reference	
36 – 40 mm	0.67	0.34 – 1.31	0.24
>40 mm	1.43	0.85 – 2.41	0.17
LV ejection fraction			
>60%		Reference	
51 – 60%	1.37	0.82 – 2.28	0.24
≤50%	2.60	1.55 – 4.34	<0.001
LA volume index			
<40 ml/m ²		Reference	
40 – 59 ml/m ²	2.08	0.27 – 16.22	0.49
≥60 ml/m ²	3.83	0.53 – 27.56	0.18
Atrial fibrillation			
No		Reference	
Yes	1.63	1.02 – 2.59	0.039
Tricuspid regurgitation			
≤moderate		Reference	
severe	1.50	0.81 – 2.75	0.19
TAPSE			
≥13 mm		Reference	
<13mm	1.68	1.00 – 2.80	0.048
RVFAC			
≥28 %		Reference	
<28 %	1.78	0.91 – 3-45	0.08

Abbreviations: TEER, transcatheter edge-to-edge repair; CI, confidence interval; LV, left ventricular; LA, left atrium; TR, tricuspid regurgitation; TAPSE, tricuspid annular plane systolic excursion; RVFAC, right ventricular fractional area change.
