

Barrero A. Temporal trend and potential impact of angiotensin receptor neprilysin inhibitors on transcatheter edge-to-edge mitral valve repair. Rev Esp Cardiol. 2022

SUPPLEMENTARY DATA

Table 1 of the supplementary data. Baseline characteristics in the ARNI era by ARNI prescription

	Treated with ARNI (n = 52)	Not treated with ARNI (n = 587)	P
Female sex	11 (21.2)	196 (33.4)	.071
Age, y	73 [65.0-79.5]	76 [69.8-82.0]	.037*
BMI, kg/m ²	26 [23.7-28.9]	26 [24.0-29.4]	.311
Diabetes	23 (44.2)	195 (34.0)	.140
Diabetes on insulin	5 (19.2)	69 (28.4)	.320
Hypertension	35 (67.3)	436 (76.2)	.152
Dyslipidemia	25 (49.0)	338 (59.0)	.167
Smoker	13 (25.5)	184 (32.3)	.318
Dialysis	0 (0.0)	17 (3.0)	.385
NYHA III-IV	46 (88.5)	495 (87.6)	.858
Ischemic heart disease	22 (42.3)	301 (52.7)	.150
Previous PCI	17 (34.7)	189 (33.2)	.833
Previous CABG	5 (9.6)	83 (14.6)	.323
Extracoronary arteriopathy	9 (17.3)	85 (15.0)	.652
Atrial fibrillation	38 (73.1)	376 (65.8)	.291
COPD	15 (28.8)	129 (22.7)	.313
Previous permanent pacemaker	12 (23.1)	70 (12.3)	.028*
Stroke	7 (13.5)	70 (12.3)	.801
Prior TAVI	0 (0.0)	19 (3.4)	.394
Critical preoperative state	5 (9.6)	31 (5.5)	.218
EuroSCORE 2, %	6.6 [5.6-10.6]	7.1 [5.1-12.3]	.873
STS score, %	6.3 [4.2-7.8]	5.6 [4.1-7.8]	.451
Urgent procedure	4 (7.8)	39 (7.0)	.775
Cardiac resynchronization therapy	11 (21.2)	66 (11.6)	.045*
Frailty	8 (16.0)	96 (17.6)	.778
Loop diuretics	49 (98.0)	503 (94.6)	.502
MRA	31 (62.0)	261 (49.2)	.082
Hydralazine + nitrates	3 (6.1)	17 (3.4)	.412

ARNI, angiotensin receptor-neprilysin inhibitors; BMI, body mass index; CABG, coronary artery bypass graft; COPD, chronic obstructive pulmonary disease; MRA, mineralocorticoid receptor antagonist; NYHA, New York Heart Association; PCI, percutaneous coronary interventions; STS, Society of Thoracic Surgeons; TAVI, transcatheter aortic valve implantation.

Data are expressed as No. (%) or median [interquartile range].

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*Significant *P* values.

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Table 2 of the supplementary data. Echocardiographic features in the ARNI era by ARNI prescription

	Treated with ARNI (n = 52)	Not treated with ARNI (n = 587)	P
<i>Preprocedural features</i>			
LVEF, %	34 [29.5-55.0]	39 [30.0-54.3]	.193
LVEDD, mm	64 [57.5-70.5]	60 [54.0-67.5]	.148
LVESD, mm	47 [33.0-59.0]	48 [37.0-58.5]	.820
LVEDV, mL	171.5 [119.0-218.0]	146 [105.0-187.0]	.060
LVESV, mL	100 [68.0-175.0]	81 [50.0-126.5]	.124
PASP, mmHg	50.5 [40.0-55.0]	50 [40.0-60.0]	.729
TAPSE, mm	17 [14.0-19.0]	17 [13.0-20.0]	.818
Regurgitant volume, mL/beat	61.9 [51.0-72.5]	56.3 [46.0-68.0]	.312
Vena contracta, mm	7 [6.5-8.0]	7 [6.1-8.0]	.469
Annulus bicommissural diameter, mm	38 [35.0-42.0]	36 [33.0-40.0]	.201
Mitral gradient, mmHg	1 [1.0-2.0]	1 [1.0-2.0]	.958
Flail	6 (19.4)	75 (20.4)	.892
Annulus calcification	4 (10.8)	75 (22.7)	.094
TR grade 3-4	15 (32.6)	173 (36.5)	.600
Mitral regurgitation grade 3-4	49 (100)	525 (100.0)	.999
LA mean pressure, mmHg	21.5 [16.0-24.0]	18 [13.0-23.0]	.190
<i>Postprocedure features</i>			
Mitral regurgitation grade 3-4	2 (4.1)	26 (4.9)	.999
PASP, mmHg	34.5 [30.0-40.0]	42.5 [35.0-50.0]	.046*
Mitral gradient, mmHg	2.5 [2.0-3.4]	3 [2.0-4.0]	.296
LA mean pressure, mmHg	12 [8.0-17.0]	13 [9.0-17.0]	.561

ARNI, angiotensin receptor-neprilysin inhibitors; LA, left atrial; LVEDD, left ventricular end-diastolic diameter; LVESD, left ventricular end-systolic diameter; LVESV, left ventricular end-systolic volume; LVEDV, left ventricular end-diastolic volume; PASP, pulmonary artery systolic pressure; TAPSE, tricuspid annular plane systolic excursion; TR, tricuspid regurgitation.

Data are expressed as No. (%) or median [interquartile range].

*Significant P values.

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Table 3 of the supplementary data. Procedural, in-hospital and long-term outcomes in the ARNI era by ARNI prescription

	Treated with ARNI (n = 52)	Not treated with ARNI (n = 587)	P
<i>Procedural outcomes</i>			
Procedural success	46 (93.9)	473 (94.6)	.743
Technical success	49 (98.0)	531 (96.7)	.999
Catheter thrombosis	1 (2.1)	1 (0.2)	.158
Cordal rupture	1 (2.1)	2 (0.4)	.228
Cordal entrapment	0 (0.0)	2 (0.4)	.999
Procedure inotropes	4 (8.0)	39 (7.1)	.774
Procedure IABP	0 (0.0)	7 (1.4)	.999
<i>In-hospital outcomes</i>			
Mortality	2 (4.5)	15 (3.0)	.638
Hematoma	7 (15.2)	31 (5.9)	.026*
Pseudoaneurysm	1 (2.1)	9 (1.7)	.579
AV fistula	0 (0.0)	8 (1.5)	.999
Vascular surgery	0 (0.0)	2 (0.4)	.999
BARC 3 bleeding	1 (1.9)	9 (1.5)	.546
Transfusion	3 (6.5)	33 (6.3)	.999
<i>Long-term outcomes</i>			
Mortality at 30 d	0 (0.0)	11 (1.9)	.999
Mortality at 1 y	3 (5.8)	51 (8.7)	.609
Mortality at 2 y	3 (5.8)	65 (11.1)	.235
NYHA III-IV at 2 y	4 (15.4)	113 (32.3)	.073
HF readmission at 2 y	5 (9.6)	101 (17.2)	.158
Mitral regurgitation 3-4	1 (1.9)	44 (14.3)	.011*
Mortality + HF readmission at 2 y	6 (11.5)	132 (22.5)	.066

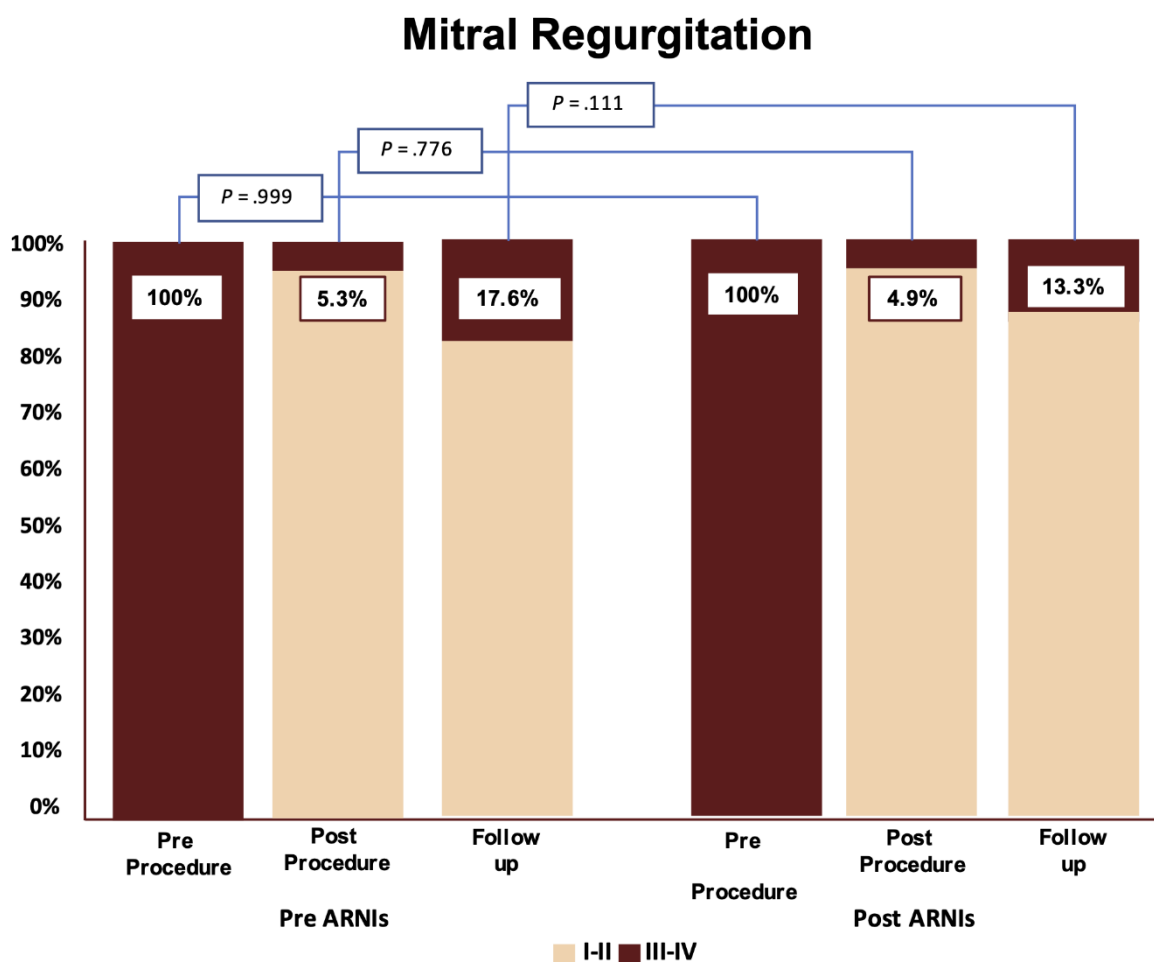
ARNI, angiotensin receptor-neprilysin inhibitors; AV, arteriovenous; BARC, Bleeding Academic Research Consortium; HF, heart failure; IABP, intra-aortic balloon pump; HF, heart failure; NYHA, New York Heart Association.

Data are expressed as No. (%)

*Significant P-values.

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Figure 1 of the supplementary data. Changes in the degree of mitral regurgitation from baseline to 2 years of follow-up according to the use of the edge-to-edge technique before and after the availability of ARNIs. ARNI, angiotensin receptor-neprilysin inhibitors.



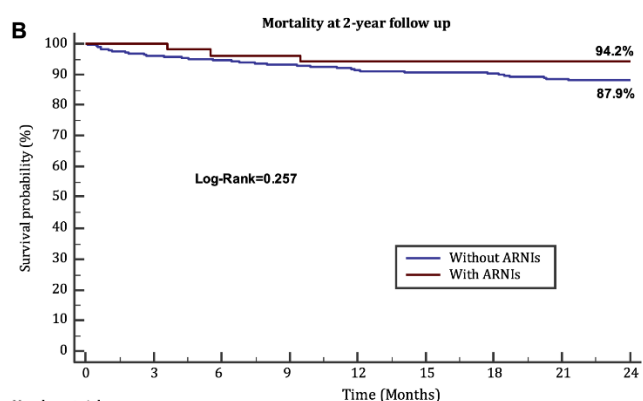
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Figure 2 of the supplementary data. Combined endpoint of death and heart failure readmission at 2 years of follow-up (A) and each component (B: death; C: heart failure readmission) in patients undergoing edge-to-edge therapy once ARNIs were available, according to their prescription. ARNIs, angiotensin receptor-neprilysin inhibitors.



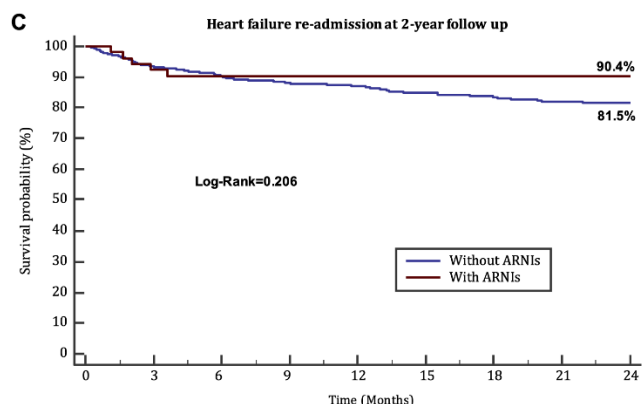
Number at risk

Group: Patients After without ARNi	587	531	510	493	469	392	333	277	229
Group: Patients After with ARNi	52	48	47	47	44	34	29	21	11



Number at risk

Group: Patients After without ARNi	587	563	555	544	516	439	380	316	261
Group: Patients After with ARNi	52	52	50	50	47	37	32	23	12



Number at risk

Group: Patients After without ARNi	587	537	518	501	476	398	339	283	235
Group: Patients After with ARNi	52	48	47	47	44	34	29	21	11