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SUPPLEMENTARY DATA

Table 1 of the supplementary data

Main features of the selected studies for the comparison of elective vs emergency TAVI

Lead author	Journal	Year	Design	N	% from overall elective TAVI	% from overall emergency/urgent TAVI
D' Ancona G.[1]	*Interact Cardiovasc Thorac Surg*	2012	Prospective, single-center	358	337/358 (94.1%)	21/358 (5.9%)
Unbehaun A.[2]	*J Thorac Cardiovasc Surg*	2012	Retrospective, single-center	258	237/258 (92%)	21/258 (8%)
Landes U.[3]	*Can J Cardiol*	2015	Prospective registry	369	342/369 (92.7%)	27/369 (7.3%)
Frerker C.[4]	*EuroIntervention*	2016	Retrospective, observational, single-center	771	744/771 (96.5%)	27/771 (3.5%)
Kolte D.[5]	*JACC Cardiovasc Interv*	2018	Multicenter registry	40042	36 090/40 042 (90.1%)	3 952/40 042 (9.9%)
Elbadawi A.[6]	*Catheter Cardiovasc Interv*	2019	Multicenter registry	42 154	32 040/42 154 (76%)	10 115/42 154 (24%)
Ichibori Y.[7]	*J Invasive Cardiol*	2019	Retrospective registry	474	396/474 (83.6%)	78/474 (16.4%)

TAVI, transcatheter aortic valve implantation.

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Table 2 of the supplementary data

Sensitivity and asymmetric analysis

	MI	Life-threatening bleeding	New PM	Stroke	AKI	Dialysis	In-hospital mortality rate	30-day mortality rate	Cardiovascular mortality rate	1-year mortality rate
Egger's test[a] fixed/ mixed-effects	0.715	0.577	0.595	0.950	0.006	NA	0.028	0.674	0.715	0.203
Egger's test[a] weighted regression	0.504	0.487	0.925	0.922	0.151	NA	0.402	0.319	0.527	0.293
Begg and Mazumdar rank correlation test[b]	0.999	0.999	0.999	0.750	0.233	0.999	0.750	0.719	0.999	0.333
Leave-one-out sensitivity analysis										
Study omitted	OR; (95%CI); *P*-value									
None omitted	2.33 (0.49,11.08) .29	1.23 (0.92,1.64) .17	1.07 (0.87,1.32) .52	1.08 (0.97,1.21) .17	2.26 (1.84,2.76) < .001	2.37 (2.09,2.68) < .001	1.93 (1.32,2.83) < .001	3.13 (1.68,5.80) < .001	5.66 (2.16,14.85) < .001	7.28 (1.32,40.12) .002
Unbehaun A. *Acquired Cardiovascular D.* 2012[2]	-	-	1.07 (0.91,1.26) .41	-	-	-	-	3.42 (1.75,6.69) .0003	5.63 (1.98,16.04) .001	-
Frerker C. *Eurointervention.* 2016[4]	-	1.22 (0.90, 1.64) .20	1.10 (0.89, 1.35) .38	1.08 (0.97, 1.21) .17	2.07 (1.87, 2.28) < .001	-	1.79 (1.34, 2.39) < .0001	2.59 (1.45, 4.63) .001	-	3.02 (1.24, 7.36) .01
Kolte D. *JACC.* 2018[5]	5.83 (5.16, 6.59) < .001	1.45 (1.38, 1.52) < .001	1.07 (0.61, 1.87) .81	1.05 (0.92, 1.20) .44	3.74 (1.63, 8.57) .002	2.38 (2.05, 2.77) < .001	5.68 (0.50, 64.33) .16	4.15 (2.18, 7.90) < .0001	-	14.38 (2.09, 98.91) .007
D´Ancona G. *Interactive Cardiovascular.* 2014[1]	-	-	-	-	-	-	-	2.93 (1.44, 5.97) < .001	-	8.70 (0.51, 149.53) < .001

Ichibori Y. *J Invasive Cardiol*. 2019[7]	2.47 (0.44, 13.91) .31	1.25 (0.93, 1.67) .14	1.10 (0.88, 1.37) .40	1.09 (0.97, 1.22) .40	2.15 (1.81, 2.55) < .001	-	1.94 (1.31, 2.90) .001	2.73 (1.45, 5.13) .002	4.18 (0.82, 21.35) .09	-
Elbadawi A. *Catheter Cardiovasc interv*. 2019[6]	1.01 (0.60, 1.72) .96	1.06 (0.94, 1.19) .37	0.99 (0.58, 1.68) .97	1.14 (0.93, 1.40) .20	3.74 (1.62, 8.60) .002	2.33 (1.86, 2.93) < .001	6.24 (0.64, 60.78) .11	-	-	-
Landes U. *Canandian J. of Cardiology.* 2015[3]	-	1.23 (0.91, 1.66) .17	1.06 (0.85, 1.33) .58	-	2.29 (1.84, 2.84) < .001	-	-	3.46 (1.77, 6.74) < .001	6.41 (2.16, 19.05) < .001	-
Trim-and-fill method[c]										
	-	-	-	-	2.21 (1.77, 2.76) < .001	-	-	-	-	-

[a] Egger's test: *P* value calculated to regression test for funnel plot asymmetry using fixed/mixed model or weighted regression model and standard error as a predictor.
[b] Begg and Mazumdar rank correlation test: *P* value calculated to rank correlation test for funnel plot asymmetry.
[c] Trim-and-fill method: Odds ratio (95% confidence interval) after imputed missing studies.
AKI, acute kidney injury; MI, myocardial infarction; NA, not-available; OR, odds ratio; PM, pacemaker.

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Table 3 of the supplementary data

Prior experience with the Impella device and extracorporeal membrane oxygenation during emergency TAVI

Author	Etiology of shock	Impella device	ECMO device[a]	Approach	Most common postoperative complications	Hospital discharge status	Follow-up status
Martinez et al. 2013[8]	Severe AR after valvuloplasty + cardiac tamponade due to pacemaker treated through lateral thoracotomy	2.5	-	TF	-	Alive	Good (up to a 6-week follow-up)
	Dysfunctional valve leaflet causing AR	2.5	-	TA	-	Alive	-
Singh et al. 2015[9]	Cardiogenic shock at admission. Impella CP and BAV as bridging therapy to elective TAVI	CP	-	TF	-	Alive (TAVI 2 weeks after BAV; discharged 30 days later with EF = 60%)	-
Singh V et al. 2015[10]	malapposition secondary to low deployment of the valve with severe AR	2.5	-	Transaortic	-	Alive (discharged to rehabilitation center)	-
Frisoli et al. 2016[11]	Coronary obstruction (bilateral)	CP	-	Transcaval	-	Alive	Good (discharged to rehab 7 days after TAVI and 1 year follow up completed)
Pascual et al. 2017[12]	NSTEMI (pre-existing shock)	CP	-	TF	-	Alive (discharged with LVEF of 45%)	-
Alraies MC et al. 2018[13]	Severe PVL solved after second Evolut-R, still persistent hypotension	CP (96 h)	-	TF	-	Alive (discharged to rehab 7 days after TAVI)	-

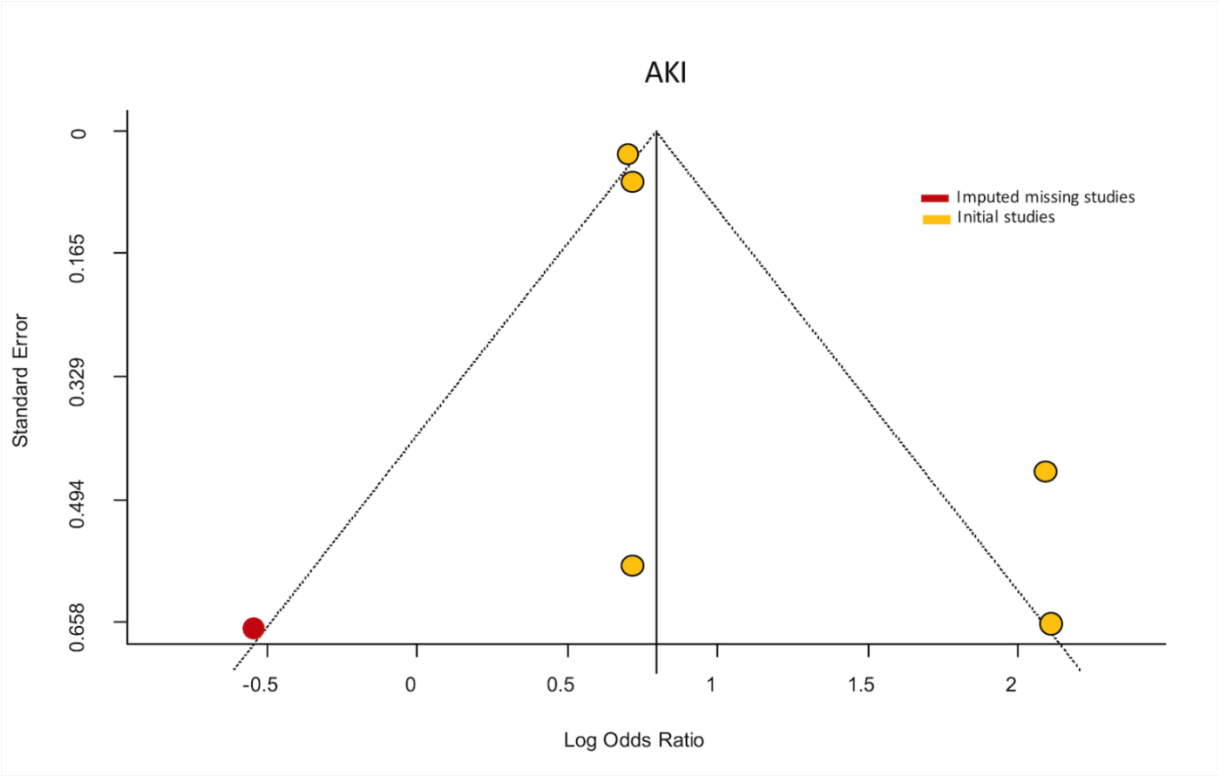
Dallan LAP et al. 2019[14]	LMCA occlusion after successful ViV-TAVI	CP	-	Unreported	-	Alive (discharged after 1 uneventful week)	-
Ching YH et al. 2020[15]	Double severe aortic lesion	2.5	-	TF		Alive	Good (LVEF of 45% at discharge with full recovery after 6 months)
Arlt et al. 2012[16]	Cardiocirculatory failure	-	4	TF	-	1 death due to MOF	-
Husser et al. 2013[17]	TAVI related complications[b]	-	9	TA and TF	AKI (33%) and life-threatening bleeding (33%)	3 deaths due to MOF and 1 due to CS	30-day mortality rate of 44%
Uehara et al.2017[18]	TAVI related complications	-	4	TF	Cerebral hypoxia and prolonged mechanical ventilation	All discharged	30-day mortality rate of 0%
Seco et al. 2014[19]	VA and device malapposition	-	3	TF	AKI (3 cases)	-	2 deaths at the 1-year follow-up
Banjac et al. 2016[20]	TAVI related complications[b]	-	10	TF (80%)	Major bleeding (1 case)	70% survival rate	-
Singh et al. 2016[21]	TAVI related complications[b]	2.5 (3 cases)	1	TA and TF	-	53% in-hospital mortality rate	1-year all-cause mortality rate of 70%

AKI, acute kidney injury; AR, aortic regurgitation; BAV, balloon aortic valvuloplasty; EF, ejection fraction; LMCA, left main coronary artery; PVL, paravalvular leak; TA, transapical; TAVI, transcatheter aortic valve implantation; TF, transfemoral; VA, ventricular arrhythmias.

[a] Number of cases.

[b] Perforation of left ventricle, ventricular arrhythmias, paravalvular aortic regurgitation, aortic rupture, valve embolization, and LMCA occlusion.

Figure 1 of the supplementary data. Funnel plot of the acute kidney injury variable after imputation of omitted studies.



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