

Table 3. Postoperative Tn and CK-MB levels

Article	Cardioplegia	Study design	Cardiac procedures	No. of patients	Troponin			p value	Timepoint	Troponin type	CKMB			p value	Timepoint
					DN	BC	HTK				DN	BC	HTK		
Eris (2021)	DN vs BC	retrospective	aortic root procedures	118	253.1±101.0 ng/l	293.4±80.1 ng/l	-	0.017	24 h post-op	TnT	-	-	-	-	-
Kagan (2021)	DN vs BC	retrospective	CABG	350	208.00±32.55 ng/l	215.34±34.79 ng/l	-	0.21	post-op	TnI	-	-	-	-	-
Lama (2021)	DN vs BC	RCT	CABG	90	6.82±5.58	6.20±5.59	-	0.5	2nd POD	TnT	74.36±24.28 U/L	79.11±32.14 U/L	-	0.66	1st POD
Lenoir (2021)	DN vs BC	PM	aortic root procedures	110	748 ng/ml	710 ng/ml	-	0.48	peak level	TnT	48.9 ug/l	51.2 ug/l	-	0.19	peak level
Ross (2021)	DN vs BC	retrospective	all cardiac procedures	497	478 (321-822) ug/l	476 (325-813) ug/l	-	0.91	peak level	TnI	-	-	-	-	-
Sanri (2021)	DN vs BC	retrospective	CABG	255	218.29±36.68 ng/l	225.00±33.14 ng/l	-	0.127	1st POD	TnI	-	-	-	-	-
Sevuk (2021)	DN vs BC	PM	all cardiac procedures and XC time > 90 min	176	478.7±33.4 ng/l	490.9±53.1 ng/l	-	0.07	peak level	TnT	-	-	-	-	-
Shu (2021)	DN vs BC	PM	all cardiac procedures	326	352.70 (221.75-582.65) ng/ml	334.50 (180.85-603.65) ng/ml	-	0.573	24 h post-op	TnI	44.00 (30.00-61.50) U/l	41.00 (26.50-57.00) U/l	-	0.34	24 h post-op
Algarni (2020)	DN vs BC	retrospective	all cardiac procedures	305	1.08 (0.95-1.19)	1.45 (1.24-1.66)	-	0.001	peak level	TnT	-	-	-	-	-
Chen (2020)	DN vs BC	PM	acute aortic dissection	122	315.0±94.9 ng/l	304.8±111.3 ng/l	-	0.588	24 h post-op	TnT	-	-	-	-	-
Kirisci (2020)	DN vs BC	RCT	CABG	60	5.91±1.81 ng/ml	5.83±1.63 ng/ml	-	0.95	6 h post-op	TnI	31.83±5.99 ng/ml	32.47±6.10 ng/ml	-	0.7	6 h post-op
Kuserli (2020)	DN vs BC	PM	aortic root procedures	72	0.3 (0.1-0.9) ng/ml	0.6 (0.3-1.4) ng/ml	-	0.001	24 h post-op	TnI	5.88±2.48	8.02±2.00	-	0.001	1 h post-op
Shi (2020)	DN vs BC	PM	aortic root procedures	86	0.49±0.25 ng/ml	0.66±0.71 ng/ml	-	0.152	post-op	TnT	32.07±13.99 U/L	36.95±21.87 U/L	-	0.221	post-op
Ucak (2020)	DN vs BC	retrospective	AVR	137	3.12±3.27 ng/ml	3.58±2.84 ng/ml	-	0.184	24 h post-op	TnI	32.94±15.60 ng/ml	36.84±13.90 ng/ml	-	0.641	12 h post-op
Willekes (2020)	DN vs BC	PM	aortic root procedures	344	0.40 (0.20-0.70) ng/ml	0.50 (0.35-0.87) ng/ml	-	< 0.0001	12 h post-op	TnI	-	-	-	-	-
Kuciński (2019)	DN vs BC	retrospective	all cardiac procedures	2108	0.324 (0.210-0.559) ng/ml	0.285 (0.191-0.496) ng/ml	-	0.01	post-op	TnT	-	-	-	-	-
Luo (2019)	DN vs BC	PM	MI AVR/MVR/DVR	132	0.39 (0.27-0.55) ng/ml	0.36 (0.24-0.57) ng/ml	-	0.655	post-op	TnT	-	-	-	-	-
Pragliola (2019)	DN vs BC	PM	all cardiac procedures	204	1.26±1.30 ng/ml	1.08±2.40 ng/ml	-	0.2	peak level	TnT	-	-	-	-	-
Sanetra (2019)	DN vs BC	RCT	AVR	150	223.10 (168.35-364.77) pg/ml	285.50 (196.20-419.45) pg/ml	-	0.93	24 h post-op	TnI	14.94 (12.16-20.39) ng/ml	17.43 (13.66-22.43) ng/ml	-	0.492	24 h post-op
Timek (2019)	DN vs BC	PM	CABG	650	0.28 (0.16-0.59) ng/ml	0.46 (0.27-0.81) ng/ml	-	< 0.01	16 h post-op	TnI	-	-	-	-	-
Kim (2018)	DN vs BC	PM	valve procedures	208	8.5±10.2 ng/ml	16.5±59.6 ng/ml	-	0.28	peak level (without Maze procedure)	TnI	-	-	-	-	-
Ad (2017)	DN vs BC	RCT	CABG and/or single valve	89	2.3±2.1 ng/ml	7.0±14.7 ng/ml	-	0.053	24 h post-op	TnT	-	-	-	-	-
Hamad (2017)	DN vs BC	retrospective	AVR + CABG	50	260.0±105.3 ng/l	370.0±218.4 ng/l	-	0.028	1 h post-op	TnI	16.7±5.3 ug/L	22.1±8.9 ug/L	-	0.011	1 h post-op
Ziazadeh (2017)	DN vs BC	PM	MI AVR	126	0.44±1.70 ng/ml	0.30±0.29 ng/ml	-	n/s	?	TnT	-	-	-	-	-
Vistarini (2016)	DN vs BC	retrospective	MI AVR	46	205±98 ng/l	255±76 ng/l	-	0.2	1st POD	TnT	11.4±5.2 ug/L	17.7±6.9 ug/L	-	0.004	“post-operative CKMB”
Gunaydin (2020)	DN vs HTK	RCT	MI AVR	200	10.8±4.0 ng/ml	-	9.1±3.0 ng/ml	0.1	post CPB	TnT	-	-	-	-	-
Lee (2020)	DN vs HTK	PM	MICS	456	6.9 (3.2-37.8) ng/ml	-	9.1(4.4-53.2) ng/ml	0.014	peak level	TnT	31.9 (19.1-113.9) ng/ml	-	37.7 (23.9-162.1) ng/ml	0.026	peak level
Mehrabanian (2018)	DN vs HTK	RCT	complex cardiac procedures	40	3.71±2.39 ng/ml	-	3.06±2.75 ng/ml	0.431	24 h post-op	TnI	-	-	-	-	-