



Interventional Cardiology

PERCUTANEOUS CORONARY INTERVENTION AND DUAL ANTIPLATELET THERAPY IS NOT ASSOCIATED WITH INCREASED CARDIOVASCULAR EVENTS PRIOR TO KIDNEY TRANSPLANTATION

Poster Contributions

Poster Hall, Hall F

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Background: Patients with end-stage renal disease (ESRD) referred for kidney transplantation (KT) often undergo preoperative angiography with or without percutaneous coronary intervention (PCI). The frequency, safety, and outcomes associated with PCI have not previously been reported.

Methods: This is a retrospective single center study of all patients undergoing KT from 2008-2016. Patients who received preoperative angiography (within 6 months) with or without PCI were identified. The primary outcomes are one-year overall survival and major adverse cardiovascular events (MACE). Secondary outcomes include intraoperative blood loss requiring transfusion and graft failure.

Results: During the study period, 2251 patients underwent KT. Preoperative angiography was performed in 122 patients with 19% receiving PCI. PCI was not associated with increased MACE among patients undergoing angiography (9% vs 3%, $P = 0.24$), although all-cause mortality was higher at one year (9% vs 0%, $P = 0.03$). Secondary outcomes of graft failure (9% vs 5%, $P = 0.62$) and intraoperative bleeding requiring transfusion (7% vs 7%, $P = 0.68$) were not statistically significant.

Conclusion: Higher all-cause mortality in the PCI group may be reflective of a "higher risk" group but overall was not associated with increase in one-year MACE, intraoperative bleeding, or graft failure. Additional studies are needed to clarify to role for angiography and PCI in modifying preoperative risk assessment in patients undergoing KT.

Table 1: Demographics and Outcomes

	No Coronary Angiography (N = 2129)	Coronary Angiography (N = 122)		P Value	P Value (Angiography Group)
		Without PCI (N = 99)	With PCI (N = 23)		
Male (%)	1313 (61)	79 (80)	15 (65)	0.00	0.13
Age (years)	52 ± 15	61 ± 10	60 ± 12	0.00	0.68
Height	168 ± 12	170 ± 11	167 ± 8	0.24	0.22
Weight	77 ± 18	82 ± 18	82 ± 15	0.01	1.00
Hypertension (%)	1967 (93)	97 (98)	22 (95)	0.10	0.52
Diabetes (%)	758 (36)	60 (61)	15 (65)	0.00	0.68
Hyperlipidemia (%)	617 (29)	59 (60)	14 (61)	0.00	0.91
Smoking history (%)	647 (31)	32 (32)	9 (39)	0.62	0.53
Atrial fibrillation (%)	56 (3)	7 (7)	0 (0)	—	0.35
Prior stroke (%)	83 (4)	10 (10)	2 (9)	0.01	0.84
Peripheral artery disease (%)	49 (2)	9 (9)	2 (9)	0.00	0.95
Coronary artery disease (%)	187 (9)	76 (77)	20 (87)	0.00	0.28
History of myocardial infarction (%)	114 (5)	44 (44)	10 (43)	0.00	0.93
Prior PCI (%)	48 (2)	65 (66)	16 (70)	0.00	0.72
Prior coronary artery bypass (%)	92 (4)	22 (22)	3 (13)	0.00	0.33
Amputation (%)	19 (0.8)	7 (7)	2 (8)	0.00	0.79
Etiology of ESRD					
Diabetes/Hypertension (%)	1277 (60)	99 (100)	23 (100)	—	1.00
Years on dialysis	3.7 ± 3.7	3.36 ± 2.5	2.96 ± 2.39	0.42	0.49
Admission medications (%)					
Aspirin	485 (23)	73 (74)	18 (78)	0.00	0.65
Ace inhibitor or equivalent	789 (38)	59 (60)	9 (39)	0.00	0.08
Beta-blocker	1157 (55)	84 (85)	18 (78)	0.00	0.44
Calcium channel blocker	975 (46)	42 (42)	14 (60)	0.28	0.11
Statins	836 (39)	62 (62)	16 (70)	0.00	0.53
Warfarin	57 (3)	6 (6)	0 (0)	—	0.59
In-Hospital Outcomes (N=)					
Death	5	0	0	—	1.00
Myocardial infarction	9	0	2	—	0.03
Stroke	4	0	0	—	1.00
Bleeding requiring transfusion	178	7	2	0.90	0.79
One Year Outcomes (N=)					
Death	22	0	2	—	0.03
MACE	24	3	2	0.00	0.24
Bleeding requiring transfusion	209	12	3	0.67	1.00
Graft dysfunction	69	5	2	0.23	1.00