Table 1: Studies of Prognostic Impact of Coronary Artery Disease on Patients Undergoing TAVI

Study	Recruitment Period (Year)	Inclusion Criteria	Sample Size (n)	Demographics	Results
Dewey et al.[30]	2005 to 2008	Transapical · Age ≥70 · STS >15% · Surgically inoperable · Transfemoral · EuroSCORE >20% · STS >10%	201	CAD group · Mean age 84.7 ± 5.4 years · Male 50.0% · DM 34.6% · HTN 88.5% · CVA 26.9% Non-CAD group · Mean age 83.1 ± 4 years · Male 55.6% · DM 44.4% · HTN 66.7% · CVA 33.3%	Mortality higher in patients with CAD than without (35.7 versus 18.4%, p=0.01). On logistic regression, presence of CAD has OR 10.1 (2.1–174.8, p=0.009) for 30-day mortality.
Masson et al.[31]	2005 to 2007	· All patients who underwent success TAVI. · Not candidates for surgical AVR on review of two surgeons.	136	· Mean age 85.1 years · Male 50.7% · BMI 24.4 · DM 25.7% · HTN 64.7% · CVA 19.1%	No difference in 30-day mortality between groups with CAD and without (p=0.56). One year survival 77.9% (95% CL: 70.9, 84.9) with no difference between groups (p=0.63).
Gautier et al.[32]	2006 to 2009	· EuroSCORE >20% · STS >10% · Contraindication to surgery	240	· Mean age 82 ± 8 years · Male 54.8%	No difference in 30-day mortality between CAD group and non-CAD group (10 versus 15%, p=0.37). No difference in 1-year mortality between CAD group and non-CAD group (23.6 versus 29.4%, p=0.28).
Italian TAVI registry (Ussia et al.)[33]	2007 to 2009	· All patients undergoing TAVI in 14 centres across Italy	663	· Mean age 81.2±5.8 years · Male 44%	No difference in 30-day mortality between CAD group and non-CAD group (6.0 versus 5.9%, adjust OR 0.78, 95%CI: 0.30–2.01, p=0.605).

		· Contraindication to surgical AVR by local heart team		· DM 26.3% · HTN 75.0% · CVA 7.3%	No difference in 30-day major adverse cerebrovascular and cardiac events between CAD group and non-CAD group (adjusted OR 0.77, 95% CI: 0.29 to 1.72, p=0.449). No difference in 1-year mortality between CAD group and non-CAD group (14.5 versus 15.9%, HR 0.74, 95% CI 0.40–1.36, p=0.331). No difference in 1-year major adverse cerebrovascular and cardiac events between CAD group and non-CAD group (15.7 versus 18.3%, adjusted HR 0.76, 95% CI: 0.42 to 1.36, p=0.353).
German TAVI registry (Abdel-Wahab et al.)[34]	2009 to 2010	· EuroSCORE ≥20% · EuroSCORE <20% and liver cirrhosis, chronic pulmonary disease or porcelain aorta.	1382	CAD group · Mean age 81.5 ± 6.1 years · Male 49.4% · BMI 26.4 ± 5.8 · DM 36.9% · CVA 9.1% Non-CAD group · Mean age 82.1 ± 6.3 years · Male 30.0% · BMI 27.8 ± 14.3 · DM 31.2% · CVA 6.1%	In-hospital mortality higher in patients with CAD compared with patients without (10.0 versus 5.5%, OR 1.90, 95% CI: 1.23–2.93, p<0.01), not significant after adjustment for confounders (adjusted OR 1.41, 95% CI 0.85–2.33, p=0.18)

the UK. TAVI registry (Snow et al.)[35]	2007 to 2011	· All patients undergoing TAVI in 31 THE UK centres	2588	· Mean age 81.31 ± 7.57 years · Male 36.3% · BMI 26.85 · DM 22.2% · CVA 17.5%	Presence of CAD not found to predict increased HR for 30-day mortality (HR 1.18, 95% CI: 0.83–1.66, p=0.36). Presence of CAD not found to predict increased HR for 1 year mortality (HR 1.18, 95% CI: 0.96–1.45, p=0.122). Presence of CAD predicted increased HR for 4 year mortality on univariate analysis (HR 1.20, 95% CI: 1.03–1.39, p=0.02) but not in multivariate analysis (HR 1.14, 95% CI: 0.97–1.35, p=0.10).	
Matta et al.[36]	2016 to 2020	· Consecutive patients referred for TAVI at Toulouse University Hospital	1336	· Mean age 84.3 ± 7 years · Male 45.2% · BMI 26.2 ± 5 · DM 74.4% · HTN 68.7% · CVA 10.7%	No difference in in-hospital mortality between CAD group and non-CAD group (3 versus 2.6%, p=0.72). No increase in odds of death on multivariate logistic regression for CAD group against non-CAD group (OR 2.28, 95% CI: 0.73–7.1).	
Bern TAVI registry (Franzone et al.)[37]	2007 to 2013	· All patients undergoing TAVI in Bern	744	CAD group · Mean age 82.1 ± 5.6 years · Male 37.9% · BMI 26.1 ± 4.7 · DM 33.5% · HTN 89.5% · CVA 10.5% Non-CAD group · Mean age 81.9 ± 5.7 years · Male 37.9% · BMI 26.3 ± 5.4 · DM 24.2%	No difference for 30-day mortality between CAD and non-CAD group (4.4 versus 4%, HR 1.12, 95% CI: 0.47–2.63, p=0.80). No difference for 1 year mortality between CAD and non-CAD group (16.6 versus 12.5%, HR 1.35, 95% CI: 0.85–2.15, p=0.21). Increased 1 year death, CVA or myocardial infarction between CAD and non-CAD group (16.8 versus 9.8%, HR 1.75, 95% CI 1.06 – 2.89, p=0.030).	

| | | | | · HTN 77.8% | |
| | | | | · CVA 7.3% | |

AVR = aortic valve replacement; BMI = body mass index; CAD = coronary artery disease; CI = confidence interval; CVA = cerebrovascular accident; DM = diabetes mellitus; HR = hazard ratio; HTN = hypertension; OR = odds ratio; TAVI = transcatheter aortic valve intervention.

References:

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