**IMPACT OF TRANSCATHETER AORTIC VALVE REPLACEMENT ON SHORT AND LONG-TERM KIDNEY FUNCTION**

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**Background:**Aortic stenosis can lead to decline in renal function including hypoperfusion and cardiorenal syndrome. Transcatheter Aortic Valve Replacement (TAVR) improves cardiovascular hemodynamics, but also requires iodinated contrast which may worsen renal function through contrast-induced nephropathy. The aim of the study is to identify changes in the estimated glomerular filtration rate (eGFR) at different intervals within 1-year of the procedure and to identify predictors of kidney function decline.

**Methods:**We carried out a single-center retrospective chart review of patients who underwent TAVR between 2012 and 2015. Acute kidney injury (AKI) was defined according to the VARC-2; and any decline/improvement in eGFR (using CKD-EPI) between 6 and 12 months (compared to baseline eGFR) was considered a long-term renal function (LTRF) decline/improvement. Malnourished patients or those on dialysis were excluded. Logistic regression was used to identify predictors of LTRF and adjust for confounders.

**Results:** 55 out of 134 patients had available data between 6 and 12 months. The mean age was 84.23 ± 6.13 with a female predominance (55%). 23 (42%) had diabetes mellitus (DM) and 6 (11%) developed AKI post-TAVR. DM was the only statistically significant independent predictor of LTRF decline (adjusted OR=1.49, p=0.036). There was a trend toward LTRF for AKI post-TAVR (adjusted OR= 5.51, p=0.081), and age (adjusted OR=1.13, p=0.058).The LTRF improvement (≥ baseline eGFR) was seen in 34 (62%) patients. The change in eGFR at the following intervals 1-3 months (82 patients with available data), 3-6 months (44 patients), 6-9 months (37 patients), 9-12 months (41 patients) were + 2.27 ml/min/1.73m2 , +0.26 ml/min/1.73m2, +0.71ml/min/1.73m2, +0.15 ml/min/1.73m2 respectively.

**Conclusion:**Patients had LTRF improvement at all studied intervals (especially in short term, 1-3months). Even though natural kidney function decline occurs over time, TAVR might have beneficial effects on preserving and even improving LTRF. Diabetes mellitus is a predictor for LTRF decline. A larger sample is needed to prove similar effect of AKI post-TAVR on LTRF.