

**00057 Chronic Kidney Disease in Transcatheter Aortic Valve Implantation: Double Trouble?**

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**Aims:** In patients with aortic stenosis (AS), the presence of concomitant chronic kidney disease (CKD) portends high morbidity and mortality. We aim to study the impact of CKD on AS patients undergoing transcatheter aortic valve implantation (TAVI).

**Methodology:** All patients with severe AS who underwent TAVI at our institution were included. The patients were categorized by estimated glomerular filtration rate (eGFR) into CKD stage 1-2 ( $\geq 60$  mL/min/1.73 m<sup>2</sup>), stage 3 (30–59 mL/min/1.73 m<sup>2</sup>) and stage 4-5 ( $< 30$  mL/min/1.73 m<sup>2</sup> or dialysis). eGFR was also analysed as a continuous variable. The main outcome was overall mortality. Secondary outcomes studied were 1-year aortic valve area (AVA), aortic valve mean pressure gradient (AV MPG) and presence of  $\geq$  moderate aortic regurgitation (AR).

**Result:** A total of 216 patients with mean age of 75.4 years, 106 (49.1%) males, mean STS score of 6.47, 78% transfemoral approach, 49.1% self-expandable valve) were included. The follow-up was 2.63 years (interquartile range 0.83 – 4.14 years).

There were 55 (25.5%) patients with CKD 1-2, 100 (46.3%) with CKD 3 and 61 (28.2%) with CKD 4-5.

On multivariate analysis, patients with advanced CKD 4-5 were at significantly higher risk of mortality than those with CKD 1-2 (adjusted hazards ratio (HR) 3.66, 95% confidence interval (CI) 1.63-8.24,  $p=0.002$ ). Lower eGFR (continuous variable) was also associated with significantly higher risk of mortality (adjusted HR 1.02, 95% CI 1.01-1.04,  $p<0.001$ ).

173 (80.1%) patients had 1-year echocardiographic outcomes. There were no significant differences in AVA and AV MPG. However, patients with CKD 4-5 and CKD 3 had higher proportion of  $\geq$  moderate AR compared to those with CKD 1-2 (20% vs 22% vs 2.2% respectively,  $p=0.010$ ).

**Conclusion:** Concomitant CKD in severe AS patients undergoing TAVI identifies a challenging subset of patients at higher risk of mortality and adverse events, which warrants meticulous management.