Chronic kidney disease is not associated with a higher risk for mortality or acute kidney injury in transcatheter aortic valve implantation.

Transcatheter aortic valve implantation (TAVI) has emerged as a new therapeutic option for surgical high-risk patients with severe aortic stenosis (AS). Many of these patients suffer from chronic kidney disease (CKD), which substantially increases the risk for acute kidney injury (AKI), need for renal replacement therapy (RRT) and mortality after surgical aortic valve repair. The impact of pre-existing CKD for the outcome of TAVI is still unclear. We retrospectively evaluated 199 consecutive patients with symptomatic high-grade AS undergoing TAVI with the CoreValve prosthesis at our centre. We analysed incidence and predictive factors for AKI, RRT and mortality in patients with and without CKD (defined as an estimated glomerular filtration rate<60 mL/min). 26.8% of the patients suffered from AKI, 4.9% needed RRT and 5.5% died. All patients on chronic haemodialysis (n = 10) survived. There were no significant differences between patients with or without CKD concerning the incidence of AKI, RRT and mortality. Age, peripheral vascular disease and the need for blood transfusion were independently associated with AKI. AKI proved to be a predictive factor for mortality. Transcatheter aortic valve replacement with the CoreValve prosthesis does not seem to bear an increased risk for patients with CKD. For surgical high-risk patients with
severe AS, a more liberal consideration for TAVI as an alternative to open surgery might be justified.