**Significant Predictors of Survival Following Endovascular Abdominal Aortic Aneurysm Repair**

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**Objective:** To identify significant predictors of survival after abdominal aortic aneurysm (AAA) repair.

**Methods:** A retrospective review of the prospective endovascular aortic repair (EVAR) patient registry of the “Virginia’s group” maintained by the Society for Vascular Surgery Patient Safety Organization. Patients were classified into normal (eGFR ≥60 mL/min/1.73 m2), moderate chronic renal insufficiency (CRI; eGFR ≥30-59) or severe CRI (eGFR <30). Kaplan-Meier and Cox-regression were used to measure and determine the predictors of survival.

**Results:** A total of 6410 EVAR patients were included with an age of 73.5 ± 8.4 years (majority were male 81.2%), with an average follow-up of 2.3 ± 2.0 years. Compared to patients with eGFR 30-59 and >60, those with the lowest eGFR <30 had the highest rate of post-op MI (3.8 vs. 2.2 and 0.8%; p<0.001) and stroke+MI+30-day mortality (3.8 vs. 2.4 and 0.8%; p<0.001). One year mortality was the highest in patients with the lowest eGFR (<30) (5.7 vs. 2.1 and 1.0%, respectively). Overall, 5-year survival was 80.6%. Significant predictors of decreased survival were, unstable angina (Hazard Ratio (HR), 2.5; P =0.007), age (by decade) (HR, 1.6; p<0.001, oxygen-dependent chronic obstructive pulmonary disease (HR, 3.3; P<0.001), eGFR <30 (HR, 2.4; P<0.001) and eGFR 30-59 (HR, 1.5; p<0.001), while pre-operative statin and aspirin use were associated with increased survival (HR, 0.79 and 0.78; both p=0.014, respectively).

**Conclusion:** Reduced renal function at baseline was found to be associated with increased post operative cardiovascular events and long-term mortality following EVAR. Increased monitoring of patients with CRI seems warranted.