Objectives: A devastating complication of complex aortic repair is acute renal thrombosis secondary to inadvertent coverage of the renal vessels. Renal graft occlusion after open bypass generally is associated with a warm ischemia time of approximately one hour before irreversible renal ischemia occurs. We would like to see if there is an opportunity for late renal salvage after inadvertent renal artery stent graft occlusion after endovascular repair of aortic aneurysms (EVAR).

Methods: A retrospective review of a prospectively maintained database of patients who underwent late renal artery stent revascularization after EVAR. The database was evaluated for all patients treated or referred for renal artery thrombosis after complex aortic aneurysm repair during a 6 year period (2012-2018). All patients were evaluated with a selective combination of arterial duplex, CT scan and renal perfusion scan to determine the viability of the affected kidney.

Results: 7 (3 males and 4 females) patients with acute renal artery thrombosis were identified after infrarenal and juxtarenal aneurysm repair. Mean age was 70 (range 57-76). Mean follow-up
was 33 months (range 0.66-58.8). Mean pre-intervention creatinine was 3.6 (range 1-8.42). Mean duration of ischemia was 60.8 days (range 14-156). 3 required initiation of hemodialysis (HD) with all 3 patients successfully recovered their renal function for the duration of the follow-up period. Five patients underwent thrombolysis and stent placement. A single patient required only angioplasty and stenting. A single patient required an iliorenal bypass, after failed endovascular intervention. Post intervention the mean Creatinine was 1.23 (range 0.98-1.9).

**Conclusions:** Late renal salvage after complex EVAR complicated by acute renal thrombosis and failure requiring dialysis is possible and should be attempted if there is evidence of maintenance of renal perfusion after renal artery impingement. The traditional surgical dogma regarding the relatively short ischemic period before loss of renal viability may not directly apply to cases of in-situ thrombosis during complex aneurysm repair, where collateral pathways potentially extend the period of viability even beyond several months.

**Author Disclosure Block:**