

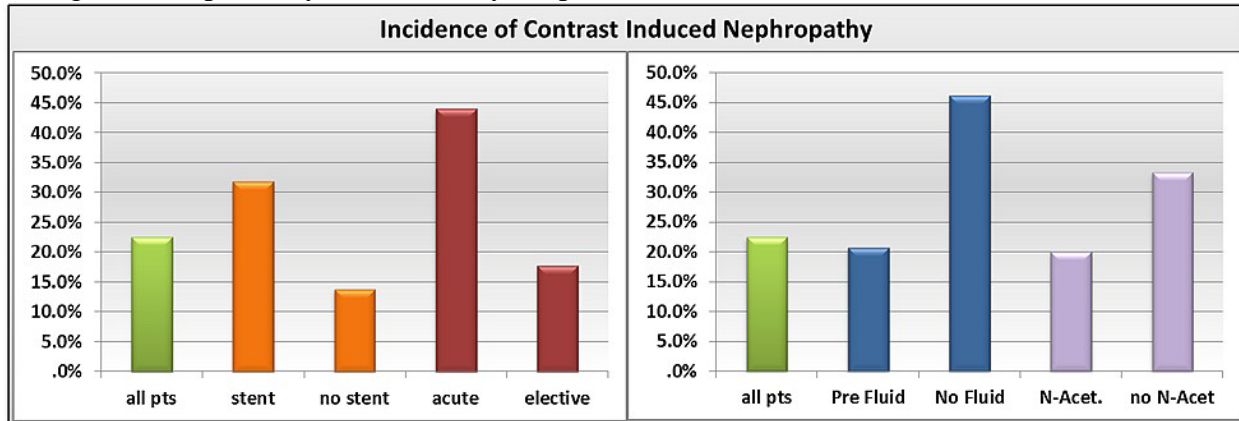
Contrast Media Induced Nephropathy in Renal Failure Patients - Maybe Not as Frightening as Expected

Milo, Gai¹; Bental, Tamir²; Assali, Abid²; Vaknin-Assa, Hana²; Tzoukerman, Tatiana¹; Battler, Alexander²; Gafter, Uzi¹; Kornowski, Ran²

¹Rabin Medical Center, Nephrology and Hypertension Department, Petach Tikva, Israel; ²Rabin Medical Center, Cardiology Department, Petach Tikva, Israel

Contrast media induced nephropathy (CIN), defined as a 25% or 0.5mg/dL raise in creatinine, increases the risk for extended hospital stay, death and dialysis. The prominent known risk factors are: prior kidney disease, diabetes, type and quantity of contrast media used, heart failure, volume depletion and age.

Different preventive strategies have been suggested and implemented. In our medical center we used hydration with normal saline and N- acetyl cysteine. We retrospectively reviewed the incidence of CIN and need for dialysis in patients with severe chronic kidney disease, defined as calculated GFR less than 30 ml/min (chronic kidney disease- CKD- stage 4-5), who underwent coronary angiography and received preventive measures (GFR calculated by abbreviated MDRD formula). We further collected data to define risk factors and the effect of preventive measures. Results: Data from 6 years was reviewed. 182 patients were identified with CKD 4-5. Overall 23% suffered CIN. In elective cases the incidence of CIN was 17% while in emergency coronary angiography it was 44%. Only 12 patients (6.5%) of this severe CKD population needed dialysis during their hospital stay. 7 of the dialyzed patients died, 5 of whom were acute cases.



Conclusions: while the incidence of CIN in this severe CKD population is 23%, only 6.5% needed dialysis support. From our data major risk factors for CIN are emergency coronary angiography, need for vasoactive amine therapy, stent placement, and diabetes treated with insulin. Normal saline prior to the angiography conveys prevention.