

Outcomes after PTA in diabetic patients with Critical Limb Ischemia according to Chronic Kidney Disease classes

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Background: Peripheral arterial disease (PAD) is common among diabetic patients with chronic kidney disease. Diabetes and renal disease are independent risk factors for PAD. Renal failure independently predicts nonhealing of ischaemic foot lesion and major amputation. The aim of this study was to assess the outcomes after percutaneous transluminal angioplasty (PTA) in diabetic patients according to Chronic Kidney Disease (CKD) classes. **Methods:** The study cohort included 456 diabetic patients with foot ulceration and PAD who performed PTA because of a CLI.

Patients were divided into five groups in relation to CKD classes: class 1 eGFR >90(n= 36), class 2 eGFR > 60 (n=160), class 3 eGFR 60-30 (n= 152), class 4 eGFR <30 (34) and class 5 in End Stage Renal Disease (ESRD) (n= 60).

We report outcomes at 16,7 ± 14,3 months as: alive without major amputation, alive with major amputation and death. **Results:** Outcomes for classes 1,2,3,4 were respectively: alive without amputation (77.8 , 74.4, 80.3, 82.3%) , alive with major amputation (11.1, 12.5, 11.2, 8.8%), dead (11.1, 13.1, 8.5, 8.8%) while outcomes for class 5 (ESRD) resulted respectively 60%, 18,3%, 21,7%. ($\chi^2=0.0175$). There was no relationship between eGFR and outcomes and mean eGFR was equivalent for the three reported major outcomes respectively 60.2±1.3, 61.8±3.4, 63.8±3.5 p=ns

Conclusions: Our data show similar outcomes for patients in CKD classes 1-4 and worse outcomes for diabetic patients in in class 5. This class includes only patients with ESRD. According to our data ESRD is able by itself to influence the outcomes after PTA while renal insufficiency does not seem to play a role. Beside the increased risk of Contrast Induced Nephropathy (CIN) reported in presence of renal insufficiency no other factors seems to influence outcome after PTA in the other CKD classes.