WCN26-8839 Clinical outcomes of renal transplantation in recipients with atherosclerotic iliac arteries: a single centre study [Abstract only]

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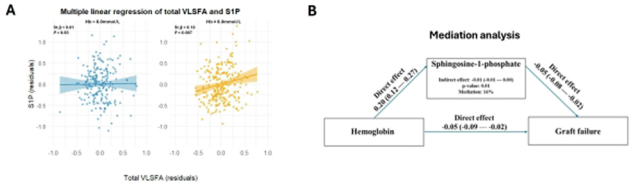
(1.8-12.3) years after transplantation. Median concentrations of circulating VLSFA and S1P were 1.28 ± 0.30 mol% and 265 (223-334) nmol/l, respectively. In cross-sectional analyses, total circulating VLSFA had the second-strongest association with circulating S1P among potential determinants next to hemoglobin (VLSFA: std. $\beta = 0.13$, $P = 0.001$; hemoglobin: std. $\beta = 0.21$, $P < 0.001$ in multivariable adjusted analyses). In non-anemic subjects, total VLSFA was most strongly associated with S1P among potential determinants, whereas the association with hemoglobin was no longer significant (Fig. 1A; VLSFA: Std. $\beta = 0.18$, P = 0.007; hemoglobin: Std. $\beta = 0.07$, P = 0.28). During a median (interquartile range) follow-up of 5.0 (3.3 – 5.6) years, 65 (13%) KTR experienced chronic graft failure. In prospective analyses, circulating S1P was inversely associated with chronic graft failure, with a hazard ratio (HR) (95% confidence interval) per 1-SD-increment of 0.64 (0.46 – 0.90), p < 0.01, independent of potential confounders. Mediation analyses showed that circulating S1P mediated 16% ($P = 0.01$) of the inverse association between hemoglobin and chronic graft failure (Fig. 1B).



Conclusion: In non-anemic KTR, circulating VLSFA had the strongest association with circulating S1P among potential determinants. Circulating S1P was inversely associated with chronic graft failure and partly mediated the inverse association between hemoglobin and chronic graft failure. Future studies should evaluate whether increasing intake of VLSFA-rich foods like peanuts can enhance circulating S1P, favorably modify risk factors, and ultimately reduce chronic graft failure in kidney transplant recipients.

I have no potential conflict of interest to disclose.

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CLINICAL OUTCOMES OF RENAL TRANSPLANTATION IN RECIPIENTS WITH ATHEROSCLEROTIC ILIAC ARTERIES: A SINGLE CENTRE STUDY

(Article No. 105563)

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Introduction: Renal transplantation is the most effective treatment for end-sage kidney disease (ESKD), offering superior survival and quality of life compared to dialysis. However, increasing prevalence of iliac artery atherosclerosis poses substantial surgical challenges, particularly in resource-limited settings where vascular imaging may not be a routine. We therefore set out to evaluate the clinical outcomes of renal transplantation in recipients with iliac artery atherosclerosis at a Nigerian transplant centre, focusing on prevalence, intraoperative challenges, surgical strategies and short-term outcomes.

Methods: A retrospective observational study was conducted with patients that had transplant between August 2023 and July 2024, and includes all adult ESKD patients with documented iliac artery atherosclerosis. Extracted data included sociodemographic data, comorbidities, intraoperative findings, and postoperative outcomes. Statistical analysis was carried out using Microsoft excel and SPSS version 27

Results: A total of 162 patients had kidney transplantation within the study period. The incidence of iliac artery atherosclerosis was 54.87%. The average age of the patients was 51.26 years, 80.6% were males, and the commonest comorbidities were diabetes mellitus, hypertension and HIV. The average BMI was 24.49 kg/m2, while about 29.1% were either overweight or obese. The site of the atheromatous plaque were external iliac artery (69.4%), femoral artery (24.2%), common iliac artery (3.2%), while some patients had it in all the vessels (3.2%). Additionally, 79.0% were bilateral, 12.9% were right-sided, while 8.1% were left-sided plaques. Out of these, 69.4% were mild, 14.5% were moderate and 16.1% were severe atherosclerosis. During the surgeries, bleeding, thrombosis and slipped suture and re-anastomosis were observed in only one patient each. Findings in the immediate post operative period included delayed graft function (6.5%), acute rejection (8.1%), and re-exploration (8.1%). The 1-year patient and graft survival were 88.7% and 72.6% respectively.

Conclusion: Renal transplantation in recipients with iliac artery atherosclerosis is feasible and can achieve relatively satisfactory short-term patient and graft survival outcomes when managed with appropriate surgical expertise and intraoperative vigilance. Although the incidence of atherosclerosis was relatively high in this cohort, perioperative complications were infrequent, revealing the value of careful patient selection and meticulous operative technique. These findings highlight the need for routine preoperative vascular assessment and context-specific surgical planning, particularly in resource-limited settings where atherosclerotic disease burden is rising alongside increasing transplant rates.

I have no potential conflict of interest to disclose.

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EARLY POST-TRANSPLANT ANEMIA IDENTIFIES HIGH-RISK KIDNEY TRANSPLANT RECIPIENTS

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Introduction: Anemia is common after kidney transplantation and has been linked to inferior outcomes. Early post-transplant anemia (PTA) may reflect impaired erythropoietic recovery or subclinical allograft dysfunction. This study aimed to determine whether anemia detected at one month post-transplant independently predicts long-term graft survival.

Methods: A single-center retrospective cohort included adult kidney transplant recipients from 2012–2016 who survived at least one year post-transplant. Clinical and laboratory data were obtained from the institutional transplant registry at baseline and at 1, 3, 6, and 12 months. Early PTA was defined as hemoglobin ≤10.5 g/dL at one month. Patients were classified as anemic or non-anemic. The primary outcome was graft survival; secondary outcomes included patient survival and renal function decline. Multivariable Cox regression was performed to identify independent predictors of graft loss.

Results: Sixty-four recipients were analyzed (mean follow-up 28.6 ± 11.4 months); 16 (25%) developed early PTA. Baseline features, including age, sex, donor type, cause of kidney failure, induction therapy, and immunosuppressive regimen, were comparable between groups. Renal function declined more steeply among anemic patients. At last follow-up, creatinine clearance was significantly lower in the anemic versus non-anemic group (58.1 ± 21.7 vs. 72.3 ± 18.3 mL/min; p = 0.013). Five-year Kaplan–Meier analysis showed inferior graft survival among anemic patients (log-rank p = 0.03) (Figure 1). On multivariable analysis, early anemia remained independently associated with graft loss (HR 12.6; 95% CI 1.5–15.7; p = 0.019). (Figure 1) Mortality did not differ significantly between groups.