2. We found that duration of diabetes was the strongest predictor of whether NDRD or DN was identified on biopsy.

3.The median duration of DM in patients with NDRD alone was 5 years, which was significantly shorter than in patients with DN alone (13 years) and DN plus NDRD (10 years), and DM duration ≥12 years emerged as the best predictor of DN alone.

4. In addition, although the median proteinuria for the entire cohort was in the nephrotic range, heavier proteinuria was associated with a lower likelihood of finding NDRD alone.

5.Taken together, these results suggest that the diabetic patient who is most likely to have NDRD alone has a short duration of DM and subnephrotic proteinuria.

I have no potential conflict of interest to disclose.

I did not use generative AI and AI-assisted technologies in the writing process.

WCN25-3334

EXPLORING THE BMD-TBS-BSI PARADOX IN PATIENTS WITH END-STAGE KIDNEY DISEASE – AT BASELINE, ACROSS THE TRANSPLANT TRANSITION AND BEYOND: A PROSPECTIVE STUDY

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Introduction: Much remains unknown with regards to the evolution of changes in densitometric indices following kidney transplant in Asians with end-stage kidney disease. Hence, this prospective study aimed to assess comprehensively the bone health in recipients of kidney transplant at baseline and following transplant at three months, 12-months and 48-months.

Methods: A prospective study in which consecutive patients with end-stage kidney disease scheduled for a kidney transplant were recruited. Evaluation included kidney and bone biochemical parameters and densitometric indices such as bone mineral density (BMD), trabecular bone score (TBS) and the bone strain index (BSI). The assessment was carried out at baseline, at 3-months, 12-months and 48-months post-transplant.

Results:

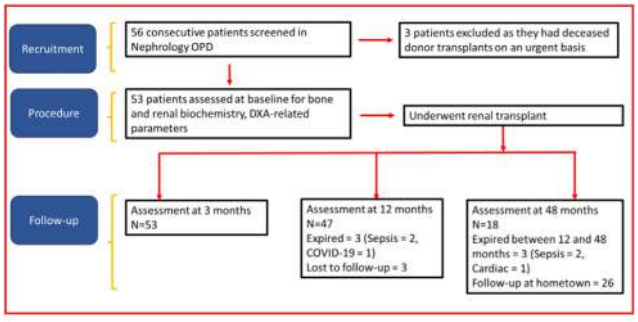
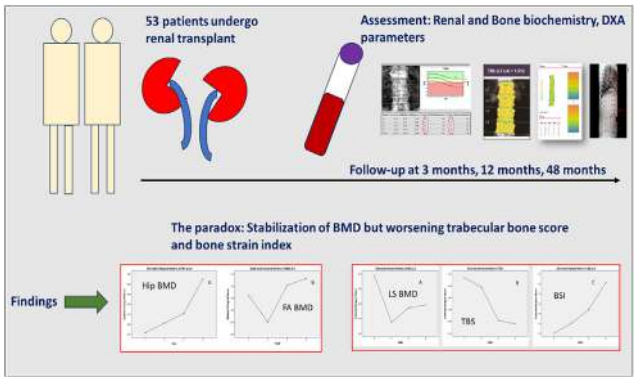


Figure 1: Flow-chart of patient recruitment and follow-up

A total of 53 patients (Females =15) were recruited. The mean (SD) age and BMI of the study population were 33.9 (10.3) years and 20.3 (3.2) kg/m2 respectively. Prevalent vertebral fractures were seen in 4/53 at baseline. Rejection occurred in 10/53 subjects in one year. A repeated measures ANOVA showed that the mean BMD at the total hip and distal forearm showed an improving trend; the lumbar spine BMD did not significantly differ during the period of follow-up. However, the TBS showed a significant decline from baseline to 4 years. This was also seen with BSI of the lumbar spine which increased progressively, indicating a higher tendency to fracture. Incident vertebral fractures occurred in 3 patients in the first year. Concentrations of parathormone, creatinine, phosphate, C-terminal telopeptide of type 1 collagen and N-terminal telopeptide of type 1 procollagen differed significantly between time points ($P < 0.01$).



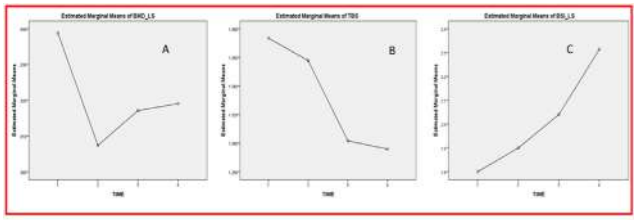


Figure 3: BMD at the lumbar spine (A), trabecular bone score (B) and bone strain index (C) at different time points – baseline(1), 3 months (2), 12 months (3), 48 months (4)

Conclusions: This prospective study in renal transplant recipients showed the BMD at all sites to be stable at 4 years of follow up. Paradoxically, the trabecular bone score and bone strain index continued to deteriorate. Incorporating TBS and BSI in addition to conventional BMD assessment in renal transplant recipients is required to gain insights into the qualitative aspects of bone strength.

I have no potential conflict of interest to disclose.

I did not use generative AI and AI-assisted technologies in the writing process.

WCN25-3373

STUDY OF PROFILE OF CHRONIC KIDNEY DISEASE RELATED MINERAL BONE DISORDERS IN HEMODIALYSIS PATIENTS- A STUDY FROM RESOURCE LIMITED TERTIARY CARE SETUP

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Introduction: Majority of Chronic kidney disease (CKD) patients are at an increased risk of developing disturbances of bone and mineral metabolism. These disturbances lead to a constellation of bone lesions which was previously referred to as renal osteodystrophy (ROD), manifesting as bone pain, muscle-tendon rupture, pruritus and high incidence of fractures. Patients with ROD are also predisposed to cardiovascular calcification with associated high morbidity and mortality rates.

The term ROD does not encompass this important extraskeletal manifestation. Therefore, to address these drawbacks and accommodate the extraskeletal manifestations,The KDIGO workgroup recommended a broader term, CKD–mineral and bone disorder (CKD-MBD) for the systemic disorder of mineral and bone metabolism due to CKD and that the term renal osteodystrophy should exclusively be used to describe disorders in bone morphology associated with CKD