Challenges in Lipid Control in the Advanced Chronic Kidney Disease Clinic: Findings from a Cross-Sectional Study

Jose Jesus Broseta Monzo, María Iraola Legarra, Marina Moncada, Diana Rodríguez, Lida Rodas, Néstor Fontseré Baldellou, Manel Vera, Marta Arias Guillen, Aleix Cases, Francisco Maduell

1Hospital Clinic of Barcelona, Spain

Background and Aims:
Chronic kidney disease (CKD) is associated with lipid metabolism disruptions and heightens cardiovascular (CV) risk. International guidelines categorize CKD patients into high CV risk (LDL target < 70mg/dL and a reduction >50% from baseline) for CKD G3b A1, CKD G3a A2, and CKD G2 A3; and very high CV risk (LDL target < 55 mg/dL and a reduction >50% from baseline) for CKD G4 and G5, CKD G3b A2-3, and those with type 2 diabetes and G3a A2-3, G3b regardless of UACR, or UACR > 300 mg/g regardless of eGFR. This cross-sectional study aims to evaluate the challenges of achieving LDL targets in advanced CKD patients, focusing on statin use.

Method:
A cross-sectional study enrolled 312 patients with advanced CKD. Collected data included demographics, renal function stage, albuminuria/proteinuria, diabetes, and cardiovascular history. Documented statin use specified type and potency. Statistical analysis employed descriptive measures.

Results:
Of the 312 patients, 207 were males, with a mean age of 69.18 ± 10.26 years, mean eGFR of 27.54 ± 12.22, and LDL of 86.64 ± 32.9. The majority had a history of diabetes (158) and previous cardiovascular disease (100). 69.6% used statins, with atorvastatin being the most common (165), followed by simvastatin (26), pravastatin (11), rosuvastatin (10), and pitavastatin (5). Statin potency varied, with high potency in 49.4%, moderate in 49.2%, and low in 1.4%. Only 19.6% of patients achieved adequate lipid control per guidelines.

Conclusion:
This study underscores the high prevalence of dyslipidemia and the challenges in achieving LDL targets in advanced CKD patients. Despite the presence of cardiovascular risk factors, including a history of cardiovascular events, the majority did not attain adequate lipid control, highlighting the imperative to address therapeutic inertia to prevent LDL detrimental consequences. Specific strategies are warranted, focusing on mitigating statins’ underutilization and low potency. Additionally, consideration of adjunct therapies such as ezetimibe and bempedoic acid is crucial. Exploring novel agents like iPCSK9 or inclisiran emerges as promising avenues for safer and more effective alternatives in this population at high cardiovascular risk.

Figure: