

Abstract Submission No.: A-0709**A case of chronic kidney disease and dyslipidemia caused by hypothyroidism****Yun Ji Lee**, Min-Jeong Lee

Department of Internal Medicine-Nephrology, Ajou University Hospital, Korea, Republic of

Case Study : Chronic kidney disease (CKD) is characterized by kidney structure abnormalities or decreased glomerular filtration rate (GFR) persisting for over three months, impacting health. Commonly caused by unmanaged diabetes mellitus, hypertension, or glomerulonephritis, other factors can also induce CKD. Herein, we present a case of CKD and dyslipidemia caused by hypothyroidism. A 53-year-old male with no known medical history presented at a nephrology clinic in 2017 with elevated serum creatinine of 1.5 mg/dL. Urine analysis did not reveal proteinuria or hematuria, and kidney ultrasonography showed normal findings. During follow-up for CKD of unknown cause, the patient's total cholesterol (T.chol) increased to 289 mg/dL (LDL-C upto 195 mg/dL), leading to the initiation of treatment with atorvastatin. However, one month after starting statins, he developed elevated creatine kinase (CK), aspartate aminotransferase (AST) and alanine aminotransferase (ALT), indicative of statin-induced rhabdomyolysis, leading to the discontinuation of the treatment. Despite the cessation of statin usage, persistent elevation in CK, AST, and ALT was noted. In August 2023, the patient underwent neurological evaluation for myopathy. Tests revealed mild hyponatremia, bradycardia, and significant hypothyroidism with a high thyroid stimulating hormone (TSH) level of 101.20 uIU/mL and low free T4 level of 0.25 ng/dL. Levothyroxine (T4) therapy was initiated, resulting in a reduction in weight from 68 kg to 61 kg, and normalization of serum creatinine to 1.02 mg/dL. Furthermore, T.chol and LDL-C decreased to 162 mg/dL and 86 mg/dL, respectively, without statins, accompanied by improvements in CK, myoglobin, AST, and ALT levels. In conclusion, this case underscores the impact of thyroid dysfunction on kidney function and lipid metabolism. Clinicians should consider to assess thyroid function tests in patients with altered kidney function markers, as timely recognition and management of thyroid disorders are crucial for effective treatment and improved clinical outcomes in CKD patients.

Figure 1.jpg

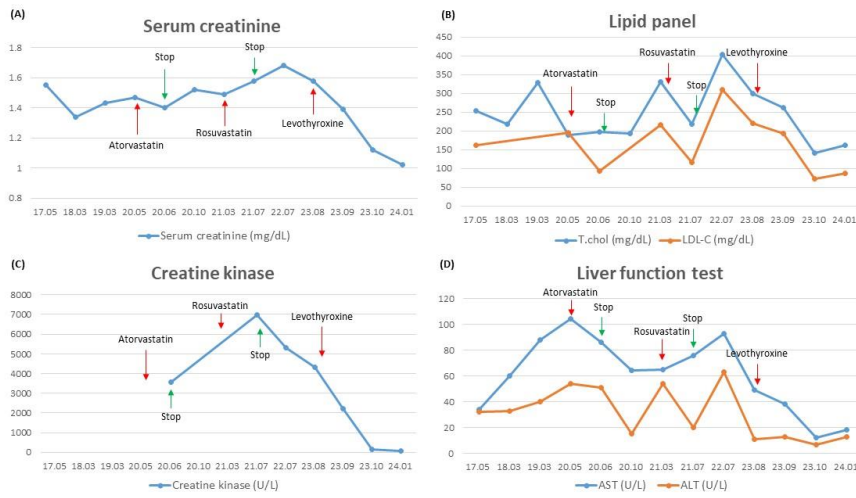


Figure 1. Laboratory studies - (A) Serum creatinine (mg/dL), (B) Lipid panel, (C) Creatine kinase (U/L), (D) Liver function test