THE KOREAN SOCIETY OF NEPHROLOGY
APCN & KSN 2024
June 13(Thu) - 16(Sun), 2024 Coex, Seoul, Korea
APSN
Promoting Sustainable Kidney Health: The Asia-Pacific and Beyond

Abstract Submission No.: A-0779

A Rare Renal Manifestation of Lymphoplasmacytic Lymphoma: Cast Nephropathy

Yu Jin Shin[1], Ho Young Yhim[4], Kyoung Min Kim[2], Yong Gon Cho[3], Kyung Pyo Kang[1]
[1]Department of Internal Medicine-Nephrology, Chonbuk National University Hospital, Korea, Republic of
[2]Department of Internal Medicine, Chonbuk National University Hospital, Korea, Republic of
[3]Department of Pathology, Chonbuk National University Hospital, Korea, Republic of
[4]Department of Laboratory Medicine, Chonbuk National University Hospital, Korea, Republic of

Case Study : Waldenström's macroglobulinemia (WM), a type of lymphoplasmacytic lymphoma (LPL), is characterized by the presence of immunoglobulin M (IgM) monoclonal protein. Light chain cast nephropathy is a form of acute or chronic kidney disease that arises from the excessive production and filtration of toxic light chains. This condition leads to tubular injury and the formation and obstruction of intratubular casts. While renal biopsy-confirmed cases of cast nephropathy are commonly linked to multiple myeloma, their occurrence in WM is comparatively infrequent. This report describes an unusual case of cast nephropathy in a patient diagnosed with LPL. A 68-year-old male patient was evaluated in the Nephrology clinic for bilateral lower extremity edema. He had a 20-year history of diabetes mellitus, complicated by diabetic retinopathy. His blood pressure was within normal limits. Laboratory investigations revealed a serum creatinine level of 0.98 mg/dl, hemoglobin 6.6 g/dl, total protein 6.4 g/dl, albumin 2.9 g/dl, and globulin 3.5 g/ml. Urinalysis indicated significant proteinuria with 3+ protein, RBCs >50/HPF, WBCs 6-10/HPF, and a urine protein-creatinine ratio of 2221.59 mg/g. Both serum and urine protein electrophoresis with immunofixation identified a monoclonal lambda subtype of IgM. A renal biopsy was conducted to explore the sudden increase in proteinuria. The biopsy revealed the presence of light chain cast nephropathy alongside diabetic nephropathy. Congo red staining yielded negative results, ruling out amyloidosis. Further evaluation included a bone marrow biopsy, which established a hematological diagnosis of LPL. Consequently, a diagnosis of cast nephropathy in the context of LPL was confirmed. The patient has commenced chemotherapy treatment with bendamustine and rituximab. This case highlights the necessity of a comprehensive diagnostic approach in patients with a history of diabetes, emphasizing the need to look beyond diabetic nephropathy. Additionally, it illuminates the possibility of cast nephropathy manifesting in LPL, expanding its known association beyond multiple myeloma.