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Case Report

Primary Membranous Glomerulonephritis in a Young Patient with Proteinuria

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Abstract

Membranous nephropathy is a common form of glomerulonephritis that typically presents with nephrotic syndrome between the 3rd and 5th decades and one-third of patients experience spontaneous remission. Here, a patient with primary membranous nephropathy is presented.

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Introduction

Under physiological conditions, daily protein excretion with urine is below 150 mg. Detecting protein excretion above this value in repeated measurements, i.e., proteinuria, should not be ignored and further evaluation should be made. Protein excretion above this level is generally an important indicator of underlying kidney damage. The commonly used method to evaluate whether the protein excretion in urine is within normal limits is the measurement of protein in 24-hour urine.[1]

Case Report

A 31-year-old patient without a known illness and no regular medication was admitted to the outpatient clinic with proteinuria. The patient did not have any complaints other than foaming in the urine and a new rash on the nasal wings. There was no history of a recent upper respiratory tract infection or arthritis. No pathology was found on physical examination. The test results of the patient are given below: urea: 24 mg/dL, creatinine: 0.7 mg/dL, albumin: 2.9 g/dL, sodium: 141 mmol/L, potassium: 4.4 mmol/L, LDL: 259, HDL: 40 mg/dL, TSH: 2, PTH: 57,

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hemoglobin: 15.2 g/dL, MCV: 82, IgM: 31, IgG: 644, IgA: 205, C4: 28, and C3: 129. The protein excretion was 9 g in 24-hour urine. RF, ANA, PR3 ANCA, MPO ANCA, HBsAg, anti-HIV, and anti-HCV were negative. ACE inhibitor and acetylsalicylic acid were initiated for the patient. The patient, who was found to have proteinuria at the nephrotic level, hyperlipidemia, and hypoalbuminemia, was referred to a kidney biopsy to investigate proteinuria's etiology. The pathology result was determined as IgG4 + membranous glomerulonephritis. During the controls, the patient, who was considered low risk, had a 24-hour urine protein of 1.5 g, was started on 10 mg atorvastatin. A dietician regulated the patient's diet, and 24-hour urine control was recommended. In the patient's follow-up, phospholipase A2 was positive, and it was followed up as idiopathic membranous glomerulonephritis.

Discussion

Membranous nephropathy is the leading cause of nephrotic syndrome in the adult population.[2-5] The disease is characterized by the deposition of immune complexes outside of the glomerular basement membrane. This accumulation causes the glomerular filtration barrier to lose its function and this results in proteinuria.[3-5] It is generally classified as membranous nephropathy, primary or secondary membranous nephropathy. There is no known etiology in 70-80% of cases. If a secondary cause cannot be determined, this group is classified as "Primary membranous nephropathy".[4,6,7] In 70% of adult patients, phospholipase A2 in podocytes has been shown to be the target antigen in primary membranous nephropathy.[8]

In conclusion, glomerulonephritis should be considered in every patient with proteinuria. Patients should be directed to biopsy before progressing to end-stage renal disease, and they should be followed up and treated.

Conflict of Interests

Authors declare that there are none.

Acknowledgment

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