

Case 1
A 64-year old female with foamy urine and progressive azotemia

Hye Ryoun Jang

Sungkyunkwan University School of Medicine, Samsung Medical Center
Department of Medicine, Division of Nephrology

A 64-year old female was admitted for evaluation of foamy urine and progressive azotemia. She was diagnosed with monoclonal gammopathy of unknown significance about 4 years ago and has been followed up by the hemato-oncology division. Kidney biopsy performed 2 years ago showed minor glomerular change. During regular follow-up by the nephrology division, progressive azotemia with increased proteinuria was detected. On admission, her vital signs were within normal limits and she had no specific symptoms except for foamy urine. Physical examination was unremarkable.

Laboratory results were as follows.

WBC 6560/ μ L (seg. neutrophil 54.4%, lymphocyte 34.8%), Hb 13.2 g/dL, Hct 38.2%, platelet 193,000/ μ L

Total protein 7.2g/dL, albumin 4.8g/dL, cholesterol 189mg/dL, BUN 17.1 mg/dL, creatinine 1.78 mg/dL, uric acid 1.7 mg/dL, calcium/phosphate 9.0/2.7 mg/dL

Na/K/Cl 144/3.6/110 mmol/L, total CO₂ 20.8 mmol/L

PT 1.04 (INR), aPTT 39.0 sec

U/A: S.G. 1.010, albumin +, blood trace, RBC 11–20/HPF

Random urine protein/creatinine ratio 1.66 mg/mg Cr

Random urine albumin/creatinine ratio 269.21 μ g/mg Cr

Serum IgG/A/M 661/71/125 mg/dL, C3/C4 88.1/19.9 mg/dL

FANA: negative, ANCA: negative

Serum electrophoresis: M peak 0.28 g/dL

Urine protein electrophoresis: Two peaks are observed in gamma globulin region.

Concentration of the peaks are 5.7%/14.3% (3.3/8.4 mg/Day)

Serum kappa light chain 586.47, lambda light chain 14.72 mg/dL, ratio 39.84

Serum immunofixation: An abnormal band is observed against anti-IgG and anti-kappa

Chest PA: no active lung lesion

Electrocardiogram: normal sinus rhythm

Abdomen & kidney US

No remarkable finding in liver, GB, biliary tree, visible pancreas, and spleen

Right kidney 10.3 x 4.4 cm, left kidney 10.8 x 5.1 cm, mildly increased cortical echogenicity

KSN 2017 Abstract

→ R/O Medical renal disease.

Kidney biopsy was performed to evaluate the cause of progressive azotemia and proteinuria.