

단백뇨를 보인 환자에서의 신사구체 기저막의 비후 1례

건국대학교병원 소아청소년과

이민정, 손미경, 김교순

A Case of Isolated Proteinuria with Isolated Thickening of the Glomerular Capillary Basement Membrane

Min Jung Lee, Mi Kyung Son, Kyo Sun Kim

Department of Pediatrics, Konkuk University School of Medicine, Seoul, Korea

It is well known that the thickening of the glomerular capillary basement membrane (TGCBM) is associated with diabetes. And isolated TGCBM is related to chronic renal disease, substantiated by persistent proteinuria. The relationship between isolated TGCBM and diabetes are not fully understood, but it appeared before the clinical overt diabetes.

We would like to report the case of children with 12 years who presented with proteinuria and kidney biopsy revealed with thickening glomerular capillary basement membrane (TGCBM).

An 12-year-old girl with asymptomatic proteinuria was admitted for renal biopsy. The proteinuria was accidentally detected by student check-up. There was no past history of diabetes, any renal disease, or hypertension.

On her physical examination, no hepatomegaly and peripheral or facial edema was detected. Her blood pressure was 99/67 mmHg. Her ophthalmologic and neurologic examinations were normal.

Laboratory workup showed the following: urinalysis; specific gravity 1.025; 3+ protein; no glucosuria in urinary sediment. The urine protein (UP)/urine creatinine (UCr) ratio 2.1 mg/mg.

Serum electrolytes were normal; BUN 11.5 mg/dl, serum creatinine 0.56 mg/dl, calcium 9.0 mg/dl, phosphorus 4.1 mg/dl, total protein 7.1 mg/dl, serum albumin 4.1 g/dl, serum cholesterol 245 mg/dl (normal range 100-220 mg/dl), high density lipoprotein 72.0 mg/dl (normal range 31.5-96.6 mg/dl), serum C3 125 mg/dl, C4 30.4 mg/dl and ANA negative. And her FPS (fasting plasma glucose) was 100 mg/dl.

The kidney ultrasonography showed no anatomical abnormalities.

A percutaneous renal biopsy was performed.

On light and electron microscopic examinations, the thickening of glomerular capillary basement membrane (Average of thickness of GBM: 568.7 nm) was seen. Immunofluorescence microscopy showed no immune deposits of basement membranes.

We started ACE inhibitor and ARB for proteinuria.

Because of the relation between TGCBM with proteinuria and prediabetes, the proper management and regular follow up were needed. It can contribute the prevention and reduction of diabetic complications.

Key Words: 신사구체 기저막의 비후, 단백뇨, 당뇨병 전기

Glomerular basement membrane, Proteinuria, Prediabetes