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## **A case of FSGS in a patient with Unilateral kidney hypoplasia**

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**Case Study: Case:** A 16-year-old girl was referred to our hospital with intermittent proteinuria over ten years. She has been routinely checked for proteinuria since she accidentally discovered right kidney hypoplasia at six years. On renal ultrasound, there was no abnormal echogenicity but right kidney hypoplasia (3.8cm) compared to the left kidney (9.6cm). Her blood pressure was 130/84 mmHg at admission. Laboratory test showed serum Hb 12.9 g/dL; Hct 38.9 %; T.Protein 8.1 g/dL; Albumin 4.6 g/dl; T.Cholesterol 225 mg/dL; BUN 14.7 mg/dL; Cr 0.99 mg/dL; eGFR 79.5 mL/min/1.73m<sup>2</sup>. Urinalysis revealed protein 1+, blood negative. Urine protein/urine creatinine ratio was 462.9 mg/g. Twenty-four-hour urine protein was 13.06 mg/m<sup>2</sup>/hr. Left renal biopsy showed glomeruli with markedly increased size and mildly hypercellular involving mesangial cells. One glomerulus (3%) exhibits segmental sclerosis. There was no evidence of immune complex or autoantibody deposition in immunofluorescence. Ultrastructurally, the glomerular basement membrane measures normal in thickness having partly irregular inner contours. There were no electron-dense deposits, and epithelial cell foot processes showed wide effacement. Tubules showed focal moderate atrophy and loss with infiltration of mononuclear cells and foam cells as with fibrosis in the interstitium. The final diagnosis was focal segmental glomerulosclerosis. She received the angiotensin-converting-enzyme inhibitor (0.2mg/kg/day) and will visit our clinic next year.

**Conclusions:** This case support that unilateral renal hypoplasia could progress to FSGS. Proper evaluation of renal hypoplasia should be done to prevent the patients from decreasing their renal function.