

Situs inversus totalis와 duplicated ureter환자에서 vesicoureteral reflux에 의한 말기신부전 1예

을지대학교 대전병원 내과¹, 을지대학교 대전병원 방사선과²

김영근¹ · 김민옥¹ · 유영욱¹ · 한현영² · 최현주¹ · 이영숙¹

A Case of ESRD with Vesicoureteral Reflux in a Patient with Situs Inversus Totalis and Duplicated Ureter

Kim Young Keun¹, Min-Ok Kim¹, Yoo Young-Wook¹, Hyun Young Han², Hyun-Ju Choi¹, Young Sook Lee¹

Department of¹ Internal Medicine Daejeon Hospital Eulji University
Department of² Radiology Daejeon Hospital Eulji University

Situs inversus is a rare congenital anomaly that occurs in 1:5,000–1:10,000 adults. In the total form, the thoracic organs, as well as the abdominal organs, are completely reversed in a "mirror image" of their normal arrangements. Commonly, Situs inversus totalis does not influence normal health or life expectancy. Despite the common anomaly of a duplicated collecting system in the urinary tract, there was no documentation of duplicated ureter and ESRD in a patient with situs inversus totalis. Herein, we present a case of duplicated ureter and ESRD in a 41-year-old woman with total situs inversus.

Case : A 41-year-old female patients with a history of melena and hematochezia visited to ER. She was brought of a child. There was no specific past medical history. The patient had no history of urinary tract infection and no sign of vesico-ureteral reflux. At physical examination, blood pressure was 100/70 mmHg and she looked paled, anemic conjunctiva. She was found to have right-sided heart sounds. Laboratory tests revealed hemoglobin 5.0 g/dL, BUN/ Cr 119/7.3 mg/dL. The calcium and phosphorus were 7.1 and 5.6 mg/dL. Alpha-fetoprotein, carcinoembryonic antigen, and cancer antigen 19-9 were within normal ranges. Creatinine clearance was 7.8 mL/min, and protein excretion in urine was 1569.5mg/day. Chest X-ray revealed dextrocardia. ECG revealed an inversion of the electrical waves in lead I, II, aVR. EGD was performed at ICU and showed active duodenal ulcer bleeding with visible vessel. First, hemoclippping and epinephrine spray were tried, thereafter then bleeding was stopped. Intensive hemodialysis therapy was performed for improvement uremic bleeding tendency. Abdomen ultrasonography and computed tomography revealed situs inversus totalis. The liver was found to be on the left side, and the spleen was found to be on the right side. Also, there were observed that duplication of the both renal pelvocalyceal system and entire ureter, severe hydronephrosis and cortical thinning. IVP showed delayed configuration of the both renogram with hydronephrosis and no contrast excretion to both pelvis, ureter and bladder. VCUG showed vesicoureteral reflux of the both and large lobulated contour of bladder with residual urine. Following 1 weeks of NPO, stool color and Hb level was normalized. The patient has been maintained dialysis via permanent catheter for out-patient department and registered waiting list for kidney transplantation.