



Surprise diagnosis in an adolescent case with chronic kidney damage: Questions

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Case summary

A 17-year-old male patient presented to the emergency room due to fatigue, severe right flank pain, and rectal bleeding that happened 3 months ago as well, and elevated serum creatinine (1.4 mg/dl), bilateral hydronephrosis, and bilateral echogenic kidneys were detected at that time. Micturating cystourethrography revealed grade 2 vesicoureteral reflux (VUR) on the right. Scintigraphy revealed 66% functioning right kidney with a non-obstructive stasis and 34% functioning left kidney with poor perfusion and concentrating ability. With these findings, a diagnosis of chronic kidney damage (CKD) secondary to VUR was made. He had no previous urinary tract infection or symptoms of dysfunctional bladder. He had a laboratory examination 2 years ago which revealed normal urea (41 mg/dl) and creatinine (0.7 mg/dl) levels. He

had no abdominal imaging before 3 months ago. In his family history, he had a cousin with a diagnosis of infantile myxoid mesenchymal tumor.

His body weight was 52 kg (3rd percentile); his height was 174 cm (45th percentile). Abdominal examination revealed a non-tender, distended abdomen with grade 2 ascites. Organomegaly was not detected. Laboratory examination revealed the following values: WBC: 9.58103 ul, HGB: 13/dl, PLT: 476,103 ul, glucose: 95 mg/dl, urea: 54 mg/dl, creatinine: 2.0 mg/dl, AST: 65 U/l, ALT: 102 U/l, amylase: 92 U/l, lipase: 8 U/l, albumin: 3.7 g/dl, sodium: 135 mEq/l, potassium: 3.4 mEq/l, magnesium: 1.6 mg/dl, chloride: 97 mEq/l, calcium: 8.5 mg/dl, and phosphorus: 3.8 mg/dl. Alpha-fetoprotein and β HCG values were normal, hepatitis markers were negative. Ascites sample was transudate. No atypical cells were detected in the ascites sample. Serum-ascites

The answers to these questions can be found at <https://doi.org/10.1007/s00467-020-04858-z>.

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albumin gradient was 1.2 g/dl. Abdominal ultrasonographic examination revealed mild dilatation in intrahepatic bile ducts, grade 2 dilatation in both kidney pelvicalyceal structures, and widespread free fluid in peritoneal compartments and increased wall thickness in the rectosigmoid region. Hydroureteronephrosis was more severe compared to previous ultrasonography (pelvis anterior-posterior diameter from 28 to 35 mm on the left, 16 mm to 20 mm on the right).

Questions:

1. What is your diagnosis?
2. Is further investigation required for the diagnosis?

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Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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