

PAPER DETAILS

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A Case Report: Renal Colic in the Pelvic Kidney

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Abstract

Renal colic is a frequent cause of application to the emergency room. Although it is a condition that requires conservative treatment, it can often be confused with clinical conditions that may require surgical intervention and complications such as urinary tract infection and acute kidney failure may occur. In this case, we viewed a 49-year-old male patient who has lower abdominal pain due to ureteral stone and did not know that he had a pelvic kidney. Because of leukocytosis and vomiting, acute appendicitis was considered as a pre-diagnosis, but abdominal CT imaging of the patient showed a left pelvic kidney and 5 mm calculus in the middle part of the ureter.

Keywords: Calculus, Pelvic kidney, Renal ectopia

Introduction

Renal colic is a frequent cause of application to the emergency room. Although it is a condition that requires conservative treatment, it can cause severe pain to agitate the patient. It can often be confused with clinical conditions that may require surgical intervention, such as abdominal aortic aneurysm rupture and acute appendicitis. Besides complications such as urinary tract infection and acute kidney failure may occur¹. Therefore, management of these patients in the emergency department is important. In addition, anatomic variations may occasionally complicate diagnosis in patients presenting with abdominal pain. In this case, we viewed a 49-year-old male patient who has lower abdominal pain due to ureteral stone and did not know that he had a pelvic kidney.

Case Presentation

A 49-year-old male patient was admitted to the emergency department with complaints of abdominal pain that began several hours earlier. There was significant pain in the right lower quadrant and suprapubic region of the abdomen. The pain was colic and accompanied by vomiting. He had no flank pain. He had no known disease. He did not have a history

of surgery and no drug use. Her vital signs (blood pressure: 130/80 mm / Hg, pulse: 92 / min, oxygen saturation: 96%) were stable. Physical examination revealed sensitivity and rebound in the right lower quadrant and suprapubic region. Costovertebral angle sensitivity was not present. In laboratory parameters, leukocyte count was 13.9×10^3 / uL and neutrophil count was 11.5×10^3 / uL. Hemoglobin was 11.4 g / dL. Liver and kidney function tests and electrolytes were within normal range. Urinalysis revealed 3+ erythrocytes. Diagnostic ultrasound was not performed due to malfunctioning ultrasound device. The patient's examination findings were accompanied by vomiting and leukocytosis, so an abdominal tomography with intravenous contrast was performed with acute appendicitis and renal colic pre-diagnoses. Abdominal CT showed a left pelvic kidney with a malrotated appearance. Grade II pelvicaliectasia was observed in the left kidney and a 5 mm calculus was observed in the middle part of the ureter. Appendix size was within normal range and no signs of appendicitis were detected.

Analgesic treatment was performed in the patient who was diagnosed as renal colic by tomography. The patient, who was relieved after the follow-up, was discharged with the suggestion of polyclinic control and analgesic prescription. In follow-up, ureteral calculi fell into the bladder and the dilatation of the pelvic collecting system regressed a few days later.



Figure 1. Lower abdominal tomography with intravenous contrast (ureteral calculi)

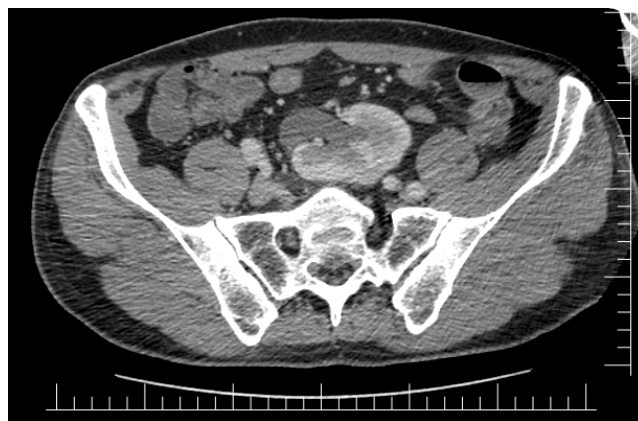


Figure 2 Intravenous contrast-enhanced lower abdominal tomography (Pelviccaliceal dilatation)

Discussion

The kidneys are retro peritoneal organs surrounded by adipose tissue. They are located between the 12th thoracic and 3rd lumbar vertebra. Pelvic ectopia accounts for 1 of each 2500 births². Pelvic kidneys are often asymptomatic and incidentally discovered. Pelvic kidneys are usually small in size and irregular in shape, with varying rotation, extrarenal calices and multiple vascularization. Due to abnormal rotation, shape and vascularization, pelvic kidneys cause complications such as urinary tract infections (UTI), kidney stones, uretero-pelvic joint obstruction, and vesico ureteral reflux³.

In our case, a 49-year-old patient did not know that he had a pelvic kidney. He was admitted with abdominal pain with out flank pain. Because of leukocytosis and vomiting, acute appendicitis was considered in the foreground. The patient was found to have anatomic variations, pelvic kidney and pelviccaliceal dilatation of this kidney due to a 5 mm stone in the ureter.

Conclusion

Anatomic variations should be kept in mind when approaching abdominal pain patients for examination and imaging methods. In a patient with a pelvic kidney, renal colic pain may be considered only in the lower abdomen and these differences should not be ignored when evaluating the patient.

References

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