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Photo Quiz

Tubo-Ovarian Abscess and Absent Vagina in an Adolescent With Congenital Anomalies of the Kidney and Urinary Tract

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Introduction

The patient was a 13-year-old woman admitted to the hospital due to urinary retention and dysuria. She had a history of Congenital Anomalies of the kidney and urinary tract (CAKUT), presenting as recurrent urinary tract infection (UTI) and vesicoureteral reflux, and had undergone surgery for imperforated hymen six months ago.

While receiving intravenous antibiotic treatment for UTI, she developed abdominal pain. The abdominal ultrasound revealed evidence of severe hydronephrosis in the right kidney, mild hydronephrosis in the left kidney, and irregular wall thickness of the urinary bladder. A foley catheter was fixed; however, she refused the catheter and it was removed. Medical treatment for the neurogenic bladder was initiated. The abdominal pain and fever continued, and a second abdominopelvic ultrasound was performed, showing mild-to-moderate hydronephrosis, hemato/hydrocolpos, septate severe ascites in the abdomen and pelvis, internal debris near the right ovary, and hydrosalpinx. Abdominopelvic CT scan with intravenous (IV) contrast confirmed the presence of hydrocolpos, hydrosalpinx with mural thickening, and significant loculated collections in the peritoneum (Figures 1).

Figures 1 Abdominal CT scans show significant loculated collections in the peritoneum along the ovaries and fallopian tubes.

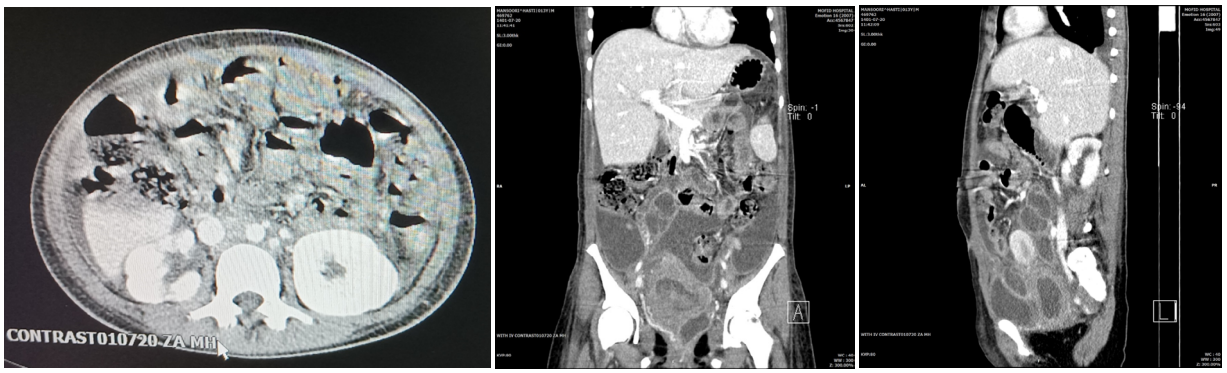

Figure 1. CT scan of the patient

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What Is your diagnosis?

The patient underwent laparotomy and drainage of the intraabdominal tubo-ovarian abscess was performed. During the operation, cystourethroscopy showed the absence of a vagina and urogenital sinus. The diagnosis of vaginal atresia and Mayer-Rokitansky-Küster-Hauser (MRKH) syndrome was considered and the patient was recommended for vaginoplasty and further endocrine workup.

MRKH syndrome is a rare inherited abnormality of the female reproductive system, characterized by the isolated uterus and upper vagina agenesis (type 1) or by associated systemic abnormalities (type 2) [1]. The most frequent organ involvement is related to the urinary system (about 30% of patients) [2] and mainly includes unilateral renal agenesis, renal dysplasia, hypoplastic kidneys, and renal ectopia [3]. A positive history of CAKUT in the patient described here further highlights the importance of systemic evaluation and regular follow-up of patients with CAKUT.

Ethical Considerations

Compliance with ethical guidelines

There were no ethical considerations to be considered in this research.

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Authors' contributions

All authors equally contributed to preparing this article.

Conflict of interest

The authors declared no conflict of interest

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