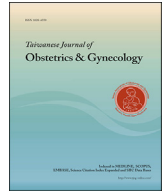




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Research Letter

An exceptional source of recurrent urinary tract infections in women: Primary retroperitoneal serous cystadenoma

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Dear editor,

Urinary tract infections are the second most common bacterial infections seen in primary care [1], and these infections are particularly frequent among women [1,2]. The recurrent urinary tract infections not responding to regular treatments need reference to urology, since in primary care settings, sophisticated diagnostic approaches are not feasible [1,3]. Sources for recurring urinary tract infections are diverse [3,4]; however to my best knowledge, there are not previous reports regarding recurrent urinary tract infections are triggered by a primary retroperitoneal cyst.

A 45-year-old female was sent with the diagnosis of recurrent urinary tract infections. She denied chronic diseases and had history of four events of urinary tract infections in a period of six months; at the last event the patient developed right lumbar pain, fever, nausea, and vomiting. Thus, her family physician sent her to our general hospital with urology service. In urology, the workup (urinalysis and an intravenous urography) showed an *E. coli* infection sensitive to all antibiotics; however, the right renal pelvis was dilated, and the ureter was medially displaced (Fig. 1, "A"). A computed tomography was indicated; this study displayed a cyst behind the cecum, above the iliopsoas muscle, and compressing the right ureter (Fig. 1, "B" and "C"). The urologist concluded an adnexal cyst, and sent her to gynecology service.

The gynecologist corroborated the cyst in image studies; however, in the pelvic exam, the cyst was not recognized. With this contradictory data, the case was presented to surgical oncology. In that service, the physical exam and radiologic findings were corroborated; thus, an exploratory laparotomy was arranged.

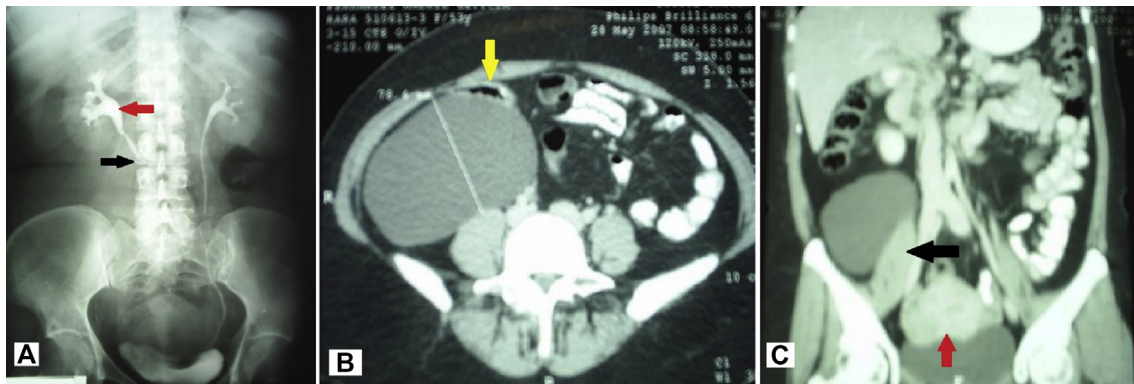


Fig. 1. "A" intravenous urography: black arrow—the amputated right ureter; red arrow—the dilated right renal pelvis. "B" axial computed tomography image: yellow arrow—the compressed cecum by the cyst. "C" coronal computed tomography image: black arrow—the right iliopsoas muscle, and above it is the cyst; red arrow—uterus. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

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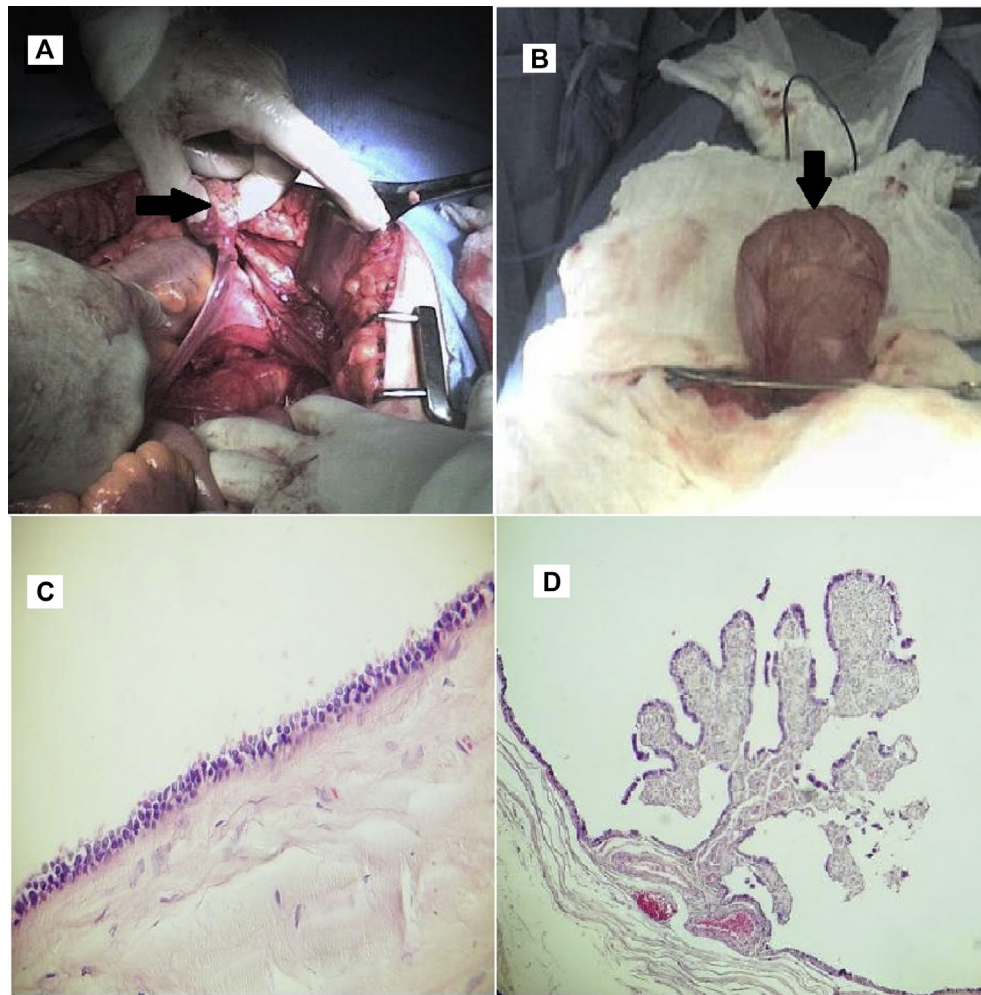


Fig. 2. “A” intra-operative field: black arrow – the right ovary. “B” intra-operative field: black arrow – the exposed retroperitoneal cyst. “C” cyst wall microphotography (H-E 100x). “D” microphotography (H-E 40x) of a microscopic papilla.

During surgery, the right ovary was normal (Fig. 2, “A”), and the cyst was found behind the cecum; the lesion ($18 \times 16 \times 14$ cm) didn't have any connection with the urinary or digestive tract, with its blood supply came from the right ovarian vessels; (Fig. 2, “B”) the cyst was extirpated. The histopathologic report indicated a primary retroperitoneal serous cystadenoma Müllerian type (Fig. 2, “C” and “D”). The patient did well, and urinary tract infections did not recur.

There are not previous reports regarding recurrent urinary tract infections caused by a primary Müllerian retroperitoneal cyst. The mechanism for development of Müllerian epithelium-lined cysts in the retroperitoneum space is not clear. They could be mucinous or serous, and benign or malignant. It could be asymptomatic and detected incidentally. They could be small or huge, and in rare cases, can cause an acute abdomen, due to rupture, hemorrhage or infection [5–10].

Retroperitoneal cysts are difficult to diagnose preoperatively due to a lack of pathognomonic features, and laboratory is not helpful. The computed tomography can demonstrate the cystic nature of the mass and in determining its relationship with adjacent structures [8,11]. Its definitive diagnosis is established only with surgery and subsequent histologic analysis [7,8].

As with all diseases, in urinary tract infections' history and physical examination, combined with appropriate laboratory and radiologic testing, represent the cornerstone of diagnosis [2]. This method helps us to evaluate our patients, and usually led us to find

the common diseases. However, we should be aware that any method has its own limitations. We know how to look for, but we do not know what it could be found.

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Informed consent

From the patient, an informed consent was obtained.

Conflict of interest

The author declares that there is not conflict of interest.

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