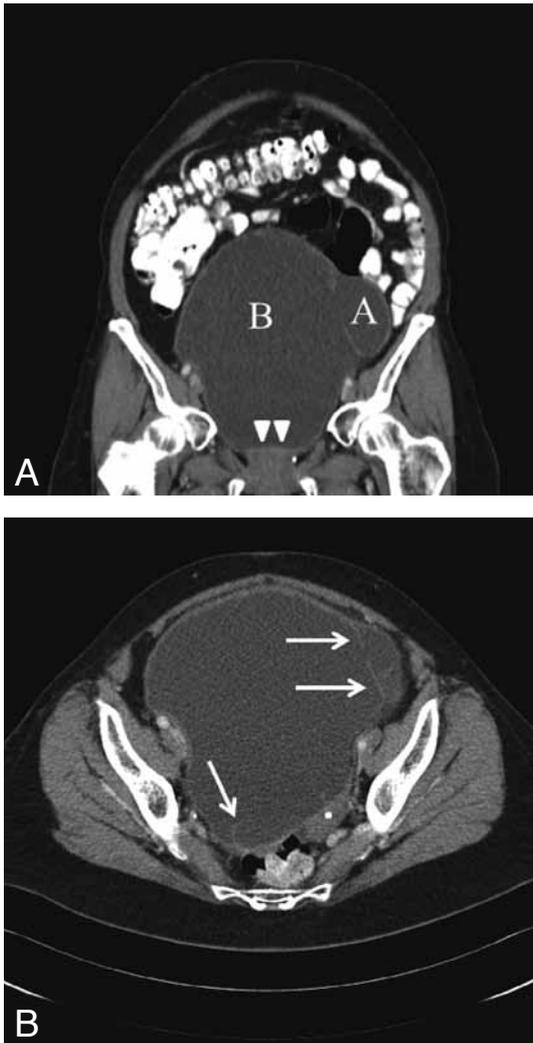


IMAGES IN CLINICAL RADIOLOGY



Diverticulum of the bladder simulating ovarian cyst: pitfalls in the differential diagnosis

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A 69-year-old Para 2 attended the outpatient department for an ultrasound scan of the pelvis. Her medical history revealed 3 lower urinary tract infections in the preceding months. Vaginal ultrasound of the pelvis showed a multilocular cyst measuring 17 x 17 x 17 cm, apparently originating from one of the adnexa and ascites. Coronal (A) and transverse CT scan (B) of the pelvis demonstrates a cystic mass, initially interpreted as an adnexal mass, suspicious for ovarian malignancy. There were septations within the mass (arrows). Retrospectively, this scan shows the bladder neck (triangles), and bladder diverticulum (A) connected to the bladder (B).

Serum CA125 level was 22.8 u/ml. Her risk of malignancy index was 207, and an exploratory laparotomy was performed. After catheterization, up to 2600 ml of urine was drained out. At laparotomy, the internal genital organs were found to be normal and no masses were seen. Cystoscopy showed a trabeculated bladder with a large wide necked diverticulum arising from the left. The urethra and bladder neck were normal.

Comment

In postmenopausal women, most of the cystic masses in the pelvis originate from the ovaries (1). Vesical diverticulae are rare and most are acquired and secondary to obstruction distal to the vesical neck. Retrospectively, the radiologist was unaware of the recurrent urinary tract infections. Ten independent radiologists were asked to review the CT scan, only 5 of them were aware of the recurrent urinary tract infections. Interestingly, 4 of 5 radiologists in the "aware group" and only 1 of 5 radiologists in the "unaware group" reviewed the cystic pelvic mass as a bladder diverticulum. This shows that it is important that the radiologist should be well informed.

Although rare, bladder diverticulum should be considered in the differential diagnosis of a cystic pelvic mass, especially when a patient has recurrent urinary tract infections. Integrating the clinical findings and the different imaging modalities in our patient may have prevented unnecessary laparotomy.

Reference

1. Wang C.W., Chang Y.L., Horng S.G., Chueh H.Y., Soong Y.K., Chiu H.C.: Pitfalls in the differential diagnosis of a pelvic cyst: Lessons from a postmenopausal woman with bladder diverticulum. *Int J Clin Pract*, 2004, 58: 894-896.

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