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Oncology

A Giant Hydronephrosis Mistakenly Diagnosed as Ovarian Tumor in a Pregnant Woman

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ABSTRACT

We report a case of giant hydronephrosis that was wrongly diagnosed as an ovarian cyst and explored in a pregnant woman. Giant hydronephrosis are uncommon and need to be kept in mind as a differential diagnosis while making a clinical diagnosis.

Introduction

A giant hydronephrosis is defined as a dilated pelvicalyceal system with an amount of fluid exceeding 1000 cc in the urinary tract of adults.[1] The most common cause of giant hydronephrosis, as described in the literature, is congenital stenosis of the ureteropelvic junction. Other causes of giant hydronephrosis include urolithiasis and tumor. A giant hydronephrosis can mimic several other clinical conditions such as ascites, intraperitoneal cysts, retroperitoneal cysts, ovarian cysts or tumors.[2] Hydronephrosis can be confused for any of these clinical conditions and patient may undergo an unnecessary surgical exploration, wrong treatment or at times even a nephrectomy. We report on a case of hydronephrosis in a 24 week pregnant woman, wrongly diagnosed as an ovarian cyst.

Case report

A 25 year old pregnant woman was admitted to a local rural hospital with complaints of abdominal pain. She was 24 weeks pregnant and complained of colicy pain in left lower abdomen. An abdominal ultrasonography was done, which revealed a huge cystic mass in the lower abdomen. A diagnosis of ovarian cyst was made and the patient explored. Exploration revealed an hydronephrotic left kidney and bilateral normal ovaries. Abdomen was closed and patient referred to Urological services of our hospital.

Serum creatinine of the patient was 1.4 mg%. Urine examination revealed plenty of pus cells. CE-MRI revealed large hydronephrotic left kidney (Fig. 1). The patient and her family were counseled. The patient was put on antibiotics and underwent left sided double J stenting. She was advised to continue with her pregnancy and was counseled that the hydronephrotic kidney would be evaluated and managed after the delivery (Fig. 2).

Discussion

Uretero-pelvic junction (UPJ) obstruction is the most common cause of significant dilation of the collecting system in the fetal kidney, accounting for 48% of all dilation of the collecting system.[3]The almost universal use of prenatal sonography has made discovery of UPJ obstruction in the antenatal period a common occurrence. It has changed our approach to evaluation, as we attempt to prove that the problem exists in an otherwise asymptomatic infant.[4] Otherwise infants may present with failure to thrive, feeding difficulties, sepsis secondary to urinary tract infection, or pain or hematuria related to nephrolithiasis. Urinary tract infection is the presenting sign in 30% of affected children beyond the neonatal period.[3] Older children may present with symptoms of episodic flank or upper abdominal pain, sometimes associated with nausea and vomiting due to intermittent UPJ obstruction. In the young adult, episodic flank or abdominal pain, particularly during

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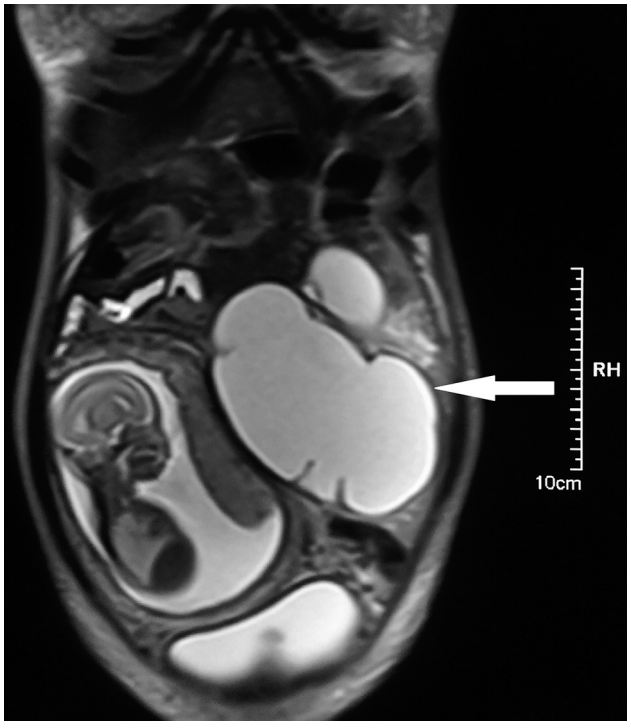

Figure 1. MRI Showing giant hydronephrotic left kindey with thin rim of renal parenchyma and 24 weeks foetus on the right side.

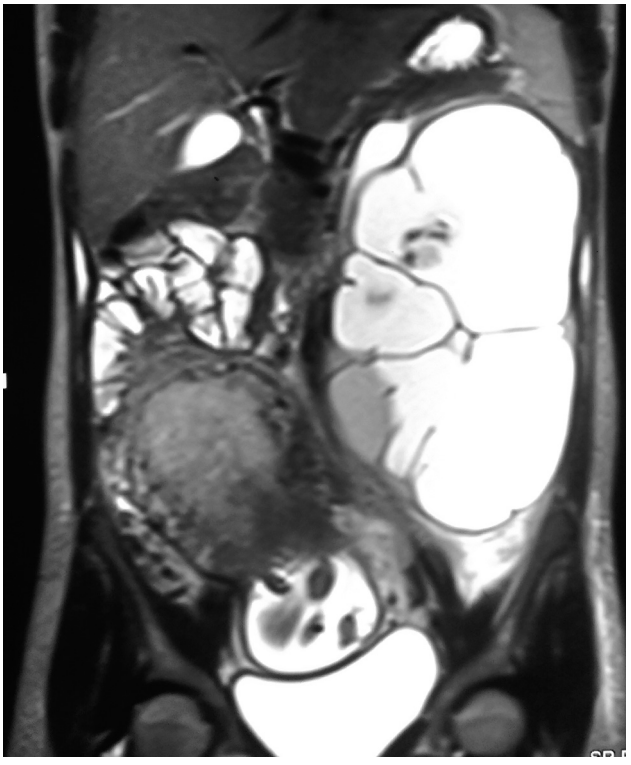

Figure 2. MRI Showing urinary bladder, foetal head, lower portion of hydronephrotic left kidney occupying lower abdomen and pelvis.

diuresis, is a common manifestation. Occasionally, a patient with the UPJ obstruction may present with hypertension, the pathophysiology being a functional ischemia with reduced blood flow caused by the enlarged collecting system that produces a renin-mediated hypertension.

The literature is abound with case reports of mistaken diagnosis. Ko et al[5] reported an unusual case of hydronephrotic pelvic kidney mimicking an ovarian cyst. Neena et al[6] similarly reported an ectopic hydronephrotic kidney masquerading as an ovarian cyst during pregnancy. Balakrishnan and Narayana[7] reported about a patient with hydronephrosis and presenting with acute abdominal pain was misdiagnosed as a case of hydrosalphinx. One needs to be careful when dealing with cystic lesions of the abdomen. An hydronephrotic kidney is a strong differential diagnosis and further imaging with a computerized tomography or magnetic resonance imaging or radio-isotope imaging would be necessary to be sure of the diagnosis.

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