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Rare Case of an Extremely Dilated Urinary Bladder and Discussing of the Problem

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Introduction

Some of the frequent causes of extremely dilated urinary bladder(EDUB) are pelviureteric junction obstruction, benign prostatic hypertrophy, urethral stricture, neurogenic bladder, retroperitoneal mass ,bladder outlet obstruction and some other rare causes[1,2,3] The incidence of non-calculus dilated urinary bladder is more common in males than in females. Ultrasonography is the most important baseline investigation in the evaluation of these patients with (EDUB)[4,5].

Purpouse

We present a case of a patient with an extremely dilated urinary bladder, incidentally found in ultrasonographic examination of the prostate for complaience of the incontinensce.

Material and Methods

The patient were exmined with Ultra sonography and after that the axial computed tomography (CT) were perfofmed. The case was of a 75 –year old man who has had a feeling of distention and pain in the abdomen for months,as well as voiding disturbancies-polakiuria.There were no other clinical pathologic findingsndings

Ultrasound examination revealed a multicystic formation with a fine sediment in it the dorzal conturs . CT and MRI investigations confirmed the finding. The diagnosis was polycistic retroperitoneal formation with unknoun origin.

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In our case the ultrasound examination revealed a multicystic formation, occupying the abdominal cavity from the symphysis up to the liver. (Fig.1). CT confirmed the finding. (Fig.2).

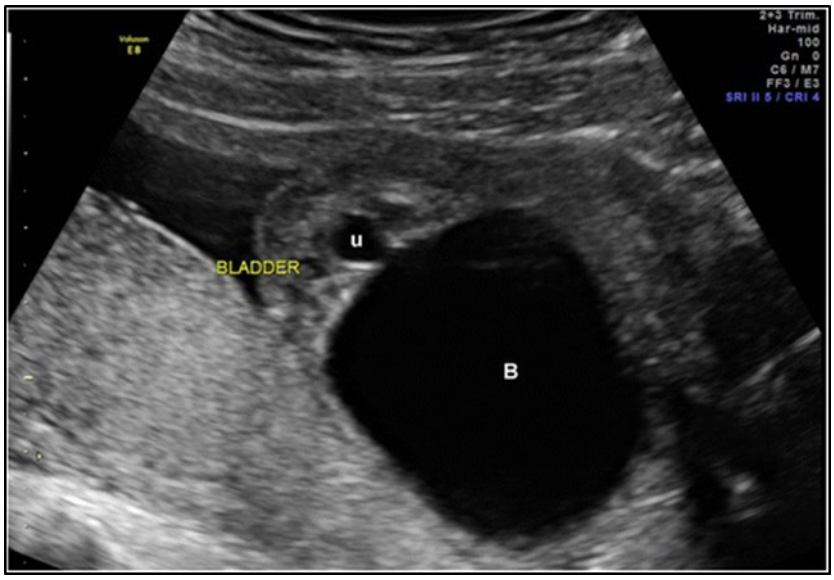

Figure 1. US examination with marked bladder distention

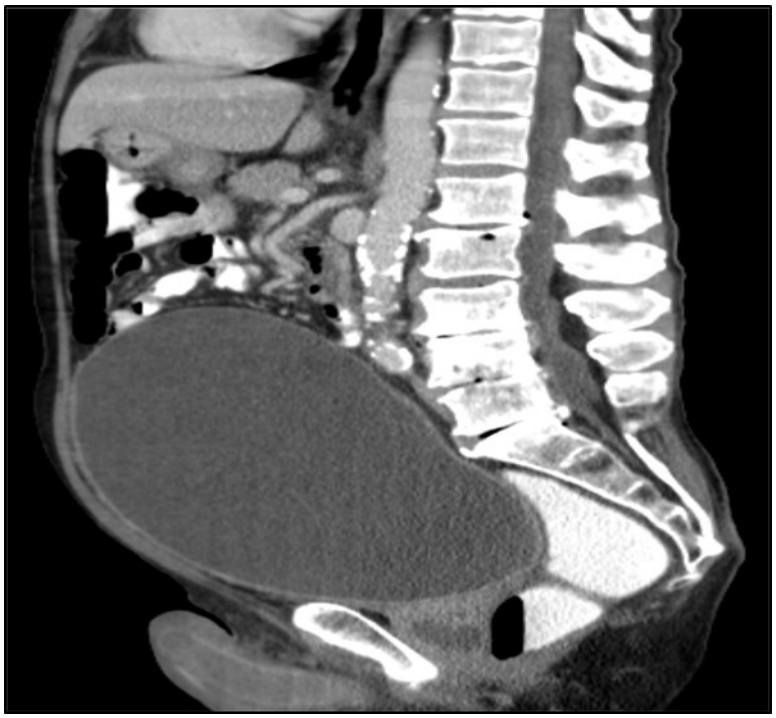

Figure 2. CT image showing a extremly dilated urinary bladder

Diagnosis of a retroperitoneal cystic formation leads to decision to operative intervention. After the cuting the skin the surgeon sees the wall of the urinary bladder. Catheterisation of the urinary bladder is carried out and eight liters of urine were evacuated. This confirmed the diagnosis of an extremely dilated urinary bladder.

Retrospectively, more precisely clinical investigation is taken which revealed suspicious for existence of the urethral stricture since childhood.

The MRI investigations confirm the diagnosis. (Fig.3). The palliative operative intervention with partial resection of urinary blader is performed and the patient have no any complaints.

Discussion

The aetiology and presentation of dilated urinary blader in adults differ from those of neonates and children.

Pelviureteric junction obstruction, benign prostatic hypertrophy, urethral stricture, neurogenic bladder, retroperitoneal mass and bladder outlet obstruction are some of the frequent causes of dilated urinary blader. The symptoms of bilateral hydronephrosis may vary depending on realty sircumstances. They include abdominal pain, continuous feeling of a full bladder, frequent urination, acute urinary retention, dysuria, urine hesitancy, urinary intermittency,, haematuria, urinary tract infections, the signs and symptoms of kidney failure like, nausea, fatigue and fluid retention [6,7]. Some of the cases are absolutly asymptomaatic.

Ultrasonography is the most important baseline investigation in the evaluation of patients with hydronephrosis and extremly dilated urinary bladder. (Fig-4).

We report a rarely seen case of bilateral hydroureteronephrosis associated with a hypertrophied, trabeculated bladder in an adult male, suspected to be due to a primary stricture of the uretra and analyse its various other causes, clinical presentations and outcomes.

Benign prosatic hiperplasia (BPH) is the most common cause of hydroureteronephrosis in adults over 60 years of age, accounting for 70% of the cases. The most bothersome symptoms include nocturia, followed by burning micturition. Transurethral resection of the prostate is the gold standard surgical modality for obstructing BPH, and it has gained popularity among urologists because of its success rate [8,9].

Urethral stricture seems to be the other important factor initiating hydroureteronephrosis. Patients with urethral stricture are treated with excision with primary anastomosis, and a high success rate of 98.8% has been observed. There are few complications, and these are self-limited and of short duration. Some patients with recurrent stricture need intermittent dilatations, urethral reconstructions and anastomosis urethroplasty [9,10].

Other less important factors that can induce hydronephrosis include ureteric stricture and VUR. Except in cases of primary PUJ obstruction, ureteral strictures are acquired, and they are usually iatrogenic. The treatment of choice depends on the length, location and cause of the stenosis. Most patients were managed with balloon dilation and endoureterotomy, while a few required open surgical repair. VUR usually affects children. Children with urinary tract infections were diagnosed with VUR after cystourethrogram[13].

The usual investigations include blood analysis for urea and creatinine to assess renal damage; excretory, antegrade or retrograde urography to ascertain narrowing of the urethra, uroflowmetry, urodynamic testing and cystoscopy.

Contrast-enhanced computed tomography (CT) and magnetic resonance imaging scans are the imaging method of choise to present the cause of extremly dilated urinary bladder[11,12]. Abdominal ultrasonography is a useful, non-invasive technique facilitated by CT scans to pinpoint the accurate diagnosis of obstructive uropathy (Figure 5.)

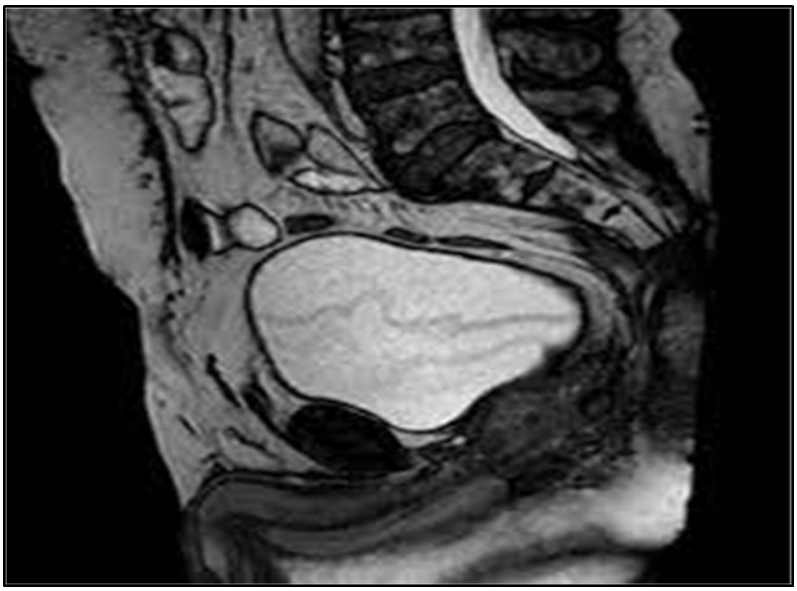

Figure 3. MRI of the same patient after catheterisation

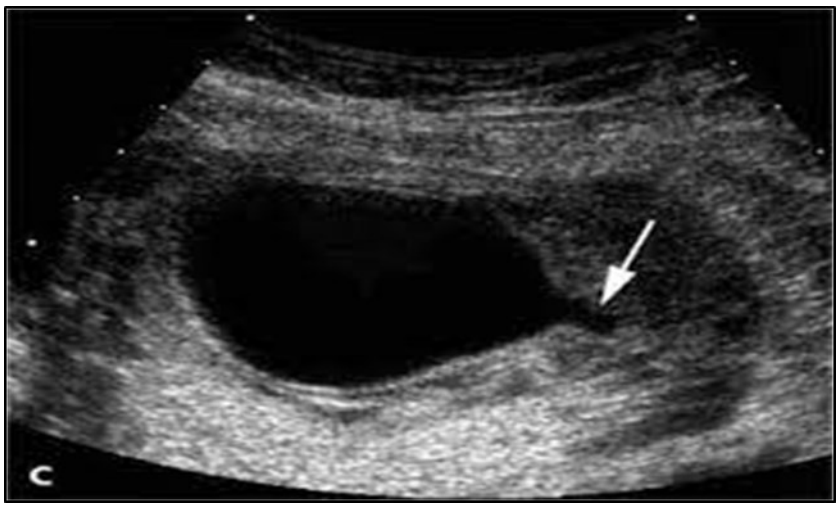

Figure 4. Posterior urethral valves with marked bladder distention. US of fetal abdomen reveal markedly distended bladder and dilated posterior urethra (arrow) extending from the bladder

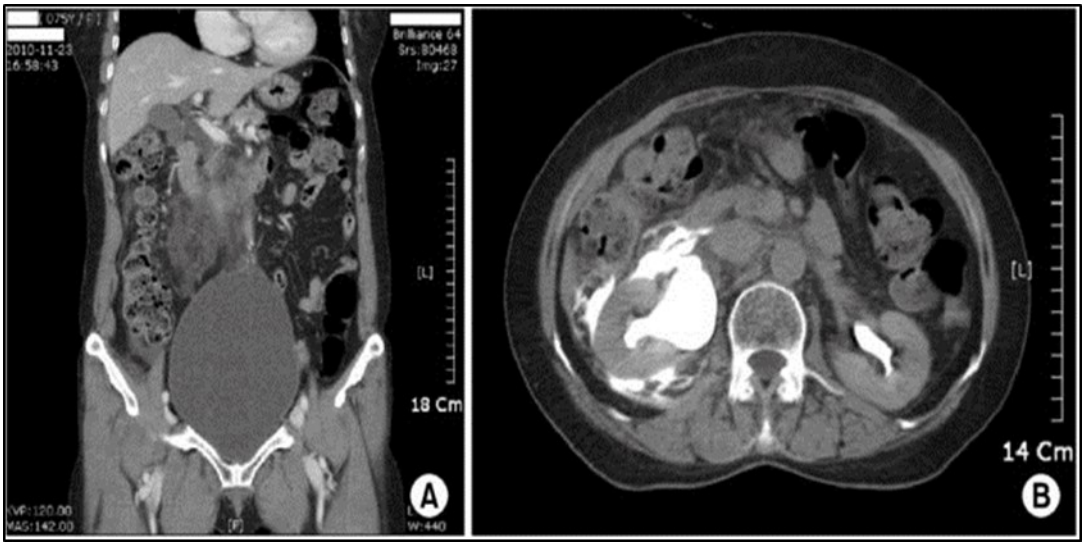

Figure 5. CT image showing a dilated bladder, suggestive of urinary retention. (B) CT image. showing extravasation of radiocontrast from the ruptured ureter. Contrast medium leakage into the perirenal space is shown. CT, computed tomographic

Despite the advancement of diagnostic modalities, however, it is difficult to differentiate hydronephrosis from other abdominal cyst formations. There is a long list of differential diagnoses, which includes ovarian cysts, retroperitoneal haematoma, hepatobiliary cysts, mesenteric cysts, pseudomyxoma, cystic renal tumours, retroperitoneal tumours, ascites and splenomegaly.

Conclusion

Of the diagnostic modalities employed in the evaluation of patients with extremly dilated urinary bladder, abdominal ultrasound is the method of choice for baseline investigation, followed by contrast-enhanced CT , MRI and intravenous pyelogram.

The above described case with extremly dilated urinary bladder, is presented in order to draw attention of diagnosticians because of the relative rarity of such pathologies.

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