

Rare Case of an Extremely Dilated Urinary Bladder

A Hilendarov*, A Georgiev, L Tchervenkov

Dept.of Imaging Diagnostics, MU-Plovdiv, Bulgaria

*Corresponding

Author:

Hilendarov Atanas, Associate Professor,
Department of Diagnostic Imaging, MU Plovdiv, Bulgaria,
E-mail: dr_hill@abv.bg

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1. Abstract

Rare Case of an Extremely Dilated Urinary Bladder A.Hilendarov, A.Georgiev, L.Tchervenkov, MU-Plovdiv, Dept.of Imaging Diagnostics 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 [1-3] 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 incontinense. Material and Methods: The patient were exmined with Ultrasonography and after that the axial computed tomography (CT) were perfofmed. The case was of a 75 year old man who has had a feel

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The patient were exmined with Ultrasonography 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 Ultrasonound examination revealed a multicystic formation with a fine sediment in it the dorzal contours . CT and MRI investigations confirmed the finding. The diagnosis was polycystic retroperitoneal formation with unknown origin

5. Case Report

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

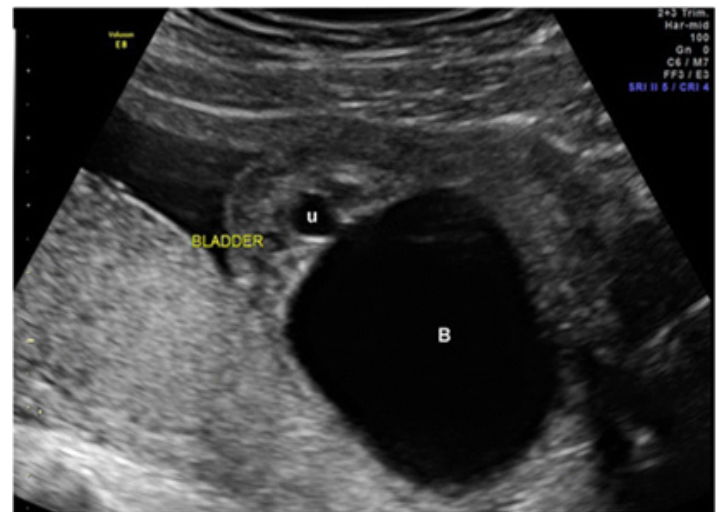


Figure 1: US examination with marked bladder distention

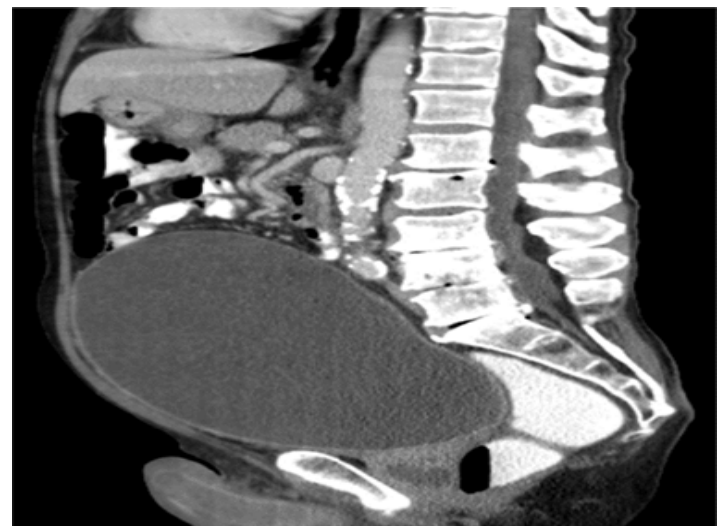


Figure 2: CT image showing a extremely dilated urinary bladder

International Journal of Clinical and Medical Case Reports

Diagnosis of a retroperitoneal cystic formation leads to decision to operative intervention. After the cutting 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 (Figure 3). The palliative operative intervention with partial resection of urinary bladder is performed and the patient have no any complaints.

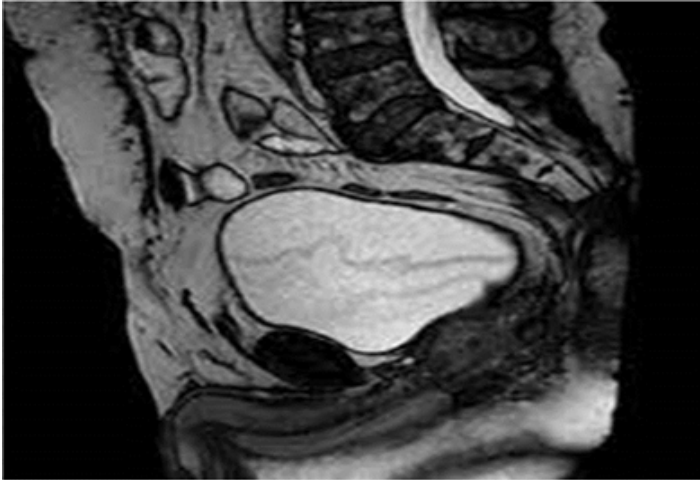


Figure 3: MRI of the same patient after catheterisation

6. Discussion

The aetiology and presentation of dilated urinary bladder 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 bladder. The symptoms of bilateral hydronephrosis may vary depending on realty circumstances. 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 absolutely asymptomatic. Ultrasonography is the most important baseline investigation in the evaluation of patients with hydronephrosis and extremely dilated urinary bladder (Figure 4).

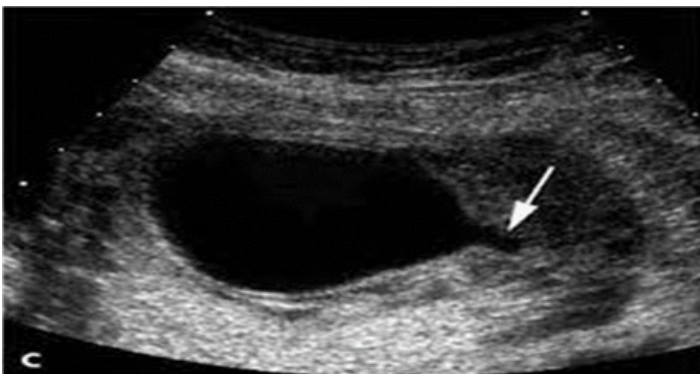


Figure 4: Posterior urethral valves with marked bladder distention. US of fetal abdomen reveal markedly distended bladder and dilated posterior urethra (arrow) extending from the bladder.

We report a rarely seen case of bilateral hydronephrosis 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 prostatic hiperplasia (BPH) is the most common cause of hydronephrosis 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]. Urethral stricture seems to be the other important factor initiating hydronephrosis. 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.

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. Abdominal ultrasonography is a useful, non-invasive technique facilitated by CT scans to pinpoint the accurate diagnosis of obstructive uropathy (Figure 5)

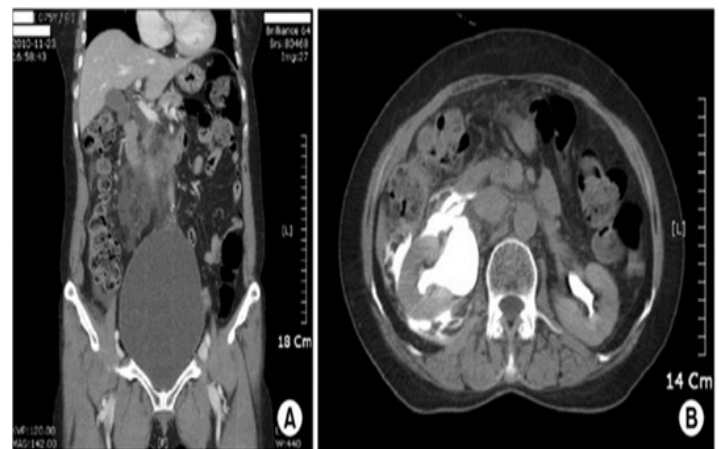


Figure 5: CT image showing a dilated bladder, suggestive of urinary retention. (B) CT image showing extravasation of radiopaque contrast from the ruptured ureter. Contrast medium leakage into the perirenal space is shown. CT, computed tomographic.

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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.

7. Conclusion

Of the diagnostic modalities employed in the evaluation of patients with extremely 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 extremely dilated urinary bladder, is presented in order to draw attention of diagnosticians because of the relative rarity of such pathologies.

References

1. Tazi MF, Riyach O, Ahallal Y, Mellas S, Khallouk A, El Fassi MJ, et al. Giant urinary bladder and bilateral giant hydronephrosis due to bladder neck obstruction: one case report and literature review. *Case Rep Urol.* 2012; 2012: 817519. doi: 10.1155/2012/817519.
2. Lameire N, Van Biesen W, Vanholder R. Acute renal failure. *Lancet.* 2005; 365: 417-430.
3. Zeidel ML. Obstructive uropathy. In: Goldman L, Schafer AI, editors. *Goldman's Cecil medicine.* 24th ed. chap 125 Philadelphia, PA: Saunders Elsevier; 2011.
4. Kasabe P, Jaykar RD, Wagh R. Clinical study of unilateral or bilateral noncalculus hydronephrosis and or hydroureter. *International Journal of Recent Trends in Science and Technology.* 2014; 10(3) :438-446.
5. McVary KT. Clinical evaluation of benign prostatic hyperplasia. *Rev Urol.* 2003; 5(Suppl 4): S3-S11.
6. Fowler CG. The kidneys and ureters. In: Russell RCG, Williams NS, Bestrode CJK, editors. *Baily and Loves short practice of surgery.* 24th ed. London: Arnold international students edition; 2004. pp. 1313-1314.
7. Kasabe P, Jaykar RD, Wagh R. Clinical study of unilateral or bilateral noncalculus hydronephrosis and or hydroureter. *International Journal of Recent Trends in Science and Technology.* 2014; 10(3): 438-446.
8. McVary KT. Clinical evaluation of benign prostatic hyperplasia. *Rev Urol.* 2003; 5(Suppl 4): S3-S11.
9. Eltahawy EA, Virasoro R, Schlossberg SM, McCammon KA, Jordan GH. Long-term follow up for excision and primary anastomosis for anterior urethral strictures. *J Urol.* 2007; 177(5): 1803-1806.