Hutch diverticulum - A rare presentation in an adult

A 66-year-old male patient presented with a history of frequent urination for many years. He was diagnosed with benign hypertrophy of prostate one year back and TURP was performed. Blood report showed increased serum creatinine level (1.8mg/dl).

Imaging Findings:

Ultrasonography of abdomen showed increased echogenicity in both kidneys, with normal cortico-medullary differentiation. Focal areas of scarring noted in the left kidney. Mild caliectasis noted in the right kidney with dilated ureter up to the lower end. No hydronephrosis or hydrometers was seen in the left kidney. The urinary bladder showed diffuse wall thickening and trabeculations. Fluid-filled outpouchings noted at both vesico-ureteric junctions measuring approximately 1.5x1.2 cm on the right side and 1.2x0.8 cm on the left side. The lower ends of both ureters were seen to open into these outpouchings. Plain CT scan of the KUB confirmed the above findings.

Discussion:

Hutch diverticulum is a rare developmental anomaly with failure of muscle development at or near the ureteral orifice. Initially a small diverticulum is formed due to herniation of bladder mucosa through the weakest point of the bladder musculature [1]. Over a period of time and with voiding this outpouching enlarges to finally involve the vesico-ureteric junction [2]. Chronically high intravesical pressure due to outlet obstruction (BEP, as in this case) may also play a role in its aetiology. Hutch diverticulum is reported infrequently in children and in adults it is even rarer [3]. It may be unilateral and infrequently bilateral. Patients may remain asymptomatic or may present with symptoms of urinary retention, obstruction, voiding dysfunction, recurrent urinary tract infection and calculi formation in the diverticulum [1]. The symptoms are more pronounced in patients with a large diverticulum, whereas cases with a small diverticulum may remain undiagnosed. In cases of acute urinary retention, compression of the bladder outlet by the Hutch diverticulum is also reported [4]. Long-standing vesico-ureteric reflux with resultant medical renal disease can also be a presentation of Hutch diverticulum. Vesico-ureteric reflux is caused by incompetent vesico-ureteric junction due to disruption of the normal oblique insertion of the ureter [4] at the vesico-ureteric junction. Renal failure, urolithiasis and enuresis are rare presentation of Hutch diverticulum [5, 1]. Ultrasonography shows
round or oval anechoic outpouchings at the base of bladder at the region of vesico-ureteric junction, which may
continuously vary in size. CT urogram helps in better delineation of the pathology and also to trace the insertion of the
lower end of ureter. VCUG under fluoroscopy guidance is investigation of choice to demonstrate reflux, bladder neck
and ureteral anatomy in relation to the diverticulum [3].

**Differential Diagnosis List:** Bilateral hutch diverticuli, Bladder diverticulum, Megaloureter

**Final Diagnosis:** Bilateral hutch diverticuli

**References:**

Association Journal V.9(5,6) (PMID: 4439242)


3794219)

Figure 1

Description: Left kidney shows focal areas of scarring and mild increased echogenicity. Corticomedullary differentiation is maintained. Origin: Mazhar S M, USG Unit, Radiance Diagnostics, Goa, India.
Description: The bladder USG shows bilateral fluid-filled outpouchings at the bladder base at the vesico-ureteric junctions. Origin: Mazhar S M, USG Unit, Radiance Diagnostics, Goa, India
Description: Note the fluid-filled outpouching at the right vesico-ureteric junction. The lower end of the right ureter is dilated and is seen to drain into the outpouching. Origin: Mazhar S M. USG Unit, Radiance Diagnostics, Goa, India.
**Description:** Well-defined bilateral outpouchings showing fluid density within, noted at the bladder base at the vesico-uretic junctions. **Origin:** Mazhar S M, CT Unit, Radiance Diagnostics, Goa, India.
Description: Hydronephrosis and hydroureter up to the lower end on the right side. The lower end of the ureter is seen to open into the outpouching. Origin: Mazhar S M, CT Unit, Radiance Diagnostics, Goa, India.
Description: Scarred left kidney. The left ureter is seen to drain into the outpouching. Bladder wall thickening is also noted. Origin: Mazhar S M, CT UNit, Radiance Dlagnostics, Goa,India.