

Introduction

Despite ureteral duplication is a frequent urological anomaly, the presence of three ureters occurring in the same side, in a complete or incomplete form, is a true rarity with approximately 100 cases reported in medical literature since it was first described in 1870.

The embryological event resulting in ureteral triplication derives from multiple ureteral buds arising from the Wolffian duct with fissuring of one or more of them.

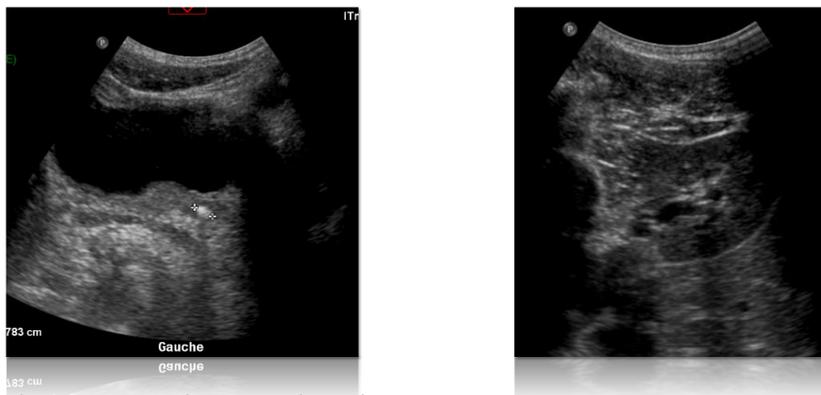
The anomalies of ureter number are generally asymptomatic but may be diagnosed by signs and symptoms of obstruction, infection, lithiasis, hematuria, pain, reflux, and ureterocele.

Cases of triple ureter are generally accompanied by other ureteral number anomalies of the opposite kidney. Intravenous urography is an effective diagnostic tool, although CT scan ultrasound may also help to clarify the diagnosis.

Case report

We report a case of incomplete triple left ureter with a double ureteral pyelocalical system (non reflux) draining independently into the bladder and a additional blind ureter (lombar portion) in a young patient consulting for episode of left renal colic.

14 year-old male patient consulting for episodes of left renal pain and microscopic hematuria. The ultrasound showed an ureteral lithiasis of 7mm in the distal ureter (1cm before ureteral meatus) with moderate distension of the renal cavities.



The decision was taken to make a therapeutic ureteroscopy.

Endoscopic approach

Cystoscopy and ureteroscopy

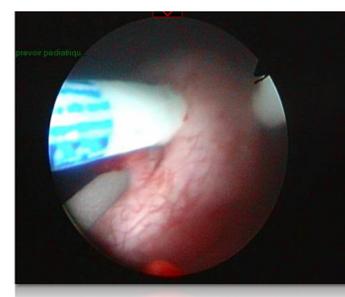
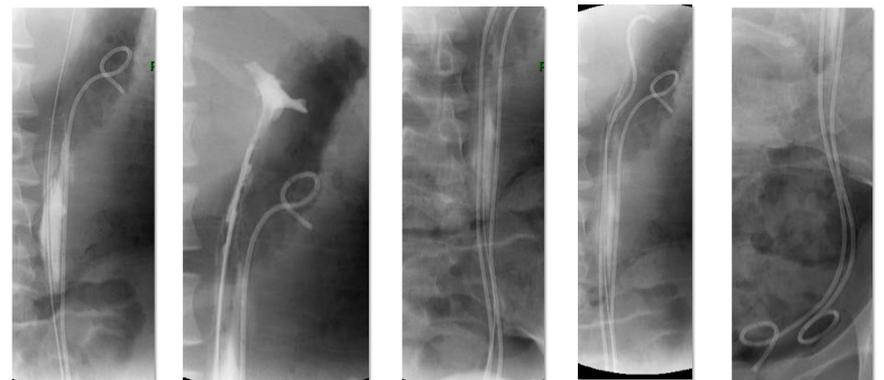
- No anomaly of the bladder wall
- Location of the left ureteral meatus
- Terumo guide in the left ureter
- Ureteroscopy with 6.4 French ureteroscope: no lithiasis visualized
- Retrograde ureteropyelography: the left ureter drains only the lower renal cavities. Because of this anatomy, we suspected an ureteral duplication.



- In the bladder, 2 other ureteral meatus were noticed.
- Guide Terumo in one of them, but he didn't go up to the kidney
- Retrograd ureteropyelography: blind ureter.



- Guide Terumo in the third ureteral meatus to the kidney.
- Ureteroscopy with 6.4 French ureteroscope: Lithiasis visualized
- Ureteroyelography: this ureter drains the upper renal cavities.



Finally, the other side was checked and showed one right ureteral meatus.

Conclusions

Being a very unusual and complex pathology, and despite all the tests made, it is very difficult to make a presurgical diagnosis. Therefore the diagnosis sometimes is only performed during the surgical treatment.

For above reasons, it is crucial to run a correct and careful cystoscopy.

Bibliography

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