Complete Stenosis of the Uretero Vesical Junction in Urogenital Tuberculosis: Management and Evolution

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ABSTRACT

Urogenital tuberculosis continues to be a major health problem around the world due to the epidemic of HIV infection.

We report the case of a 40-year-old patient followed for urogenital tuberculosis and who presented during her follow-up a complication of her disease type ureteral stenosis, managed by endoscopic route.

We try through our work to focus on the value of surveillance after anti-bacillary treatment in order to watch for complications and act in an innocuous way.

Keywords: Endourology, Urogenital Tuberculosis, Uretero-vesical junction, Stenosis.

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I. INTRODUCTION

Urogenital tuberculosis is the most frequent localization of extra-pulmonary forms of Koch's Bacillus (BK) with an uncertain course.

Serious condition, characterized by the diversity of the warning signs Dysuria, pollakiuria, microscopic hematuria, which makes its diagnosis difficult and often carried out at a late stage which can cause irreversible damage to the urinary tract.

Tuberculosis lesions of the urogenital tract are a real challenge for the urologist and often require endourological maneuvers or resection and / or reconstruction surgery, to remove the obstruction and improve quality of life patients.

II. OBSERVATION

We report the case of a 40-year-old female patient without comorbidities, followed for treated urogenital tuberculosis, who consulted as part of her follow-up for right back pain that has progressed for 2 months. The clinical examination was normal, the biological assessment

revealed renal failure at 35 mg/l with correct serum potassium. A renal ultrasound was performed having objectified a right ureterohydronephrosis without obstacle with a left kidney reduced in size without dilation; the abdominal CT scan without injection carried out with the aim of eliminating a lithiasic obstacle objectified a right ureterohydronephrosis without individualizable obstacle.

The initial management was a right nephrostomy after a failed catheter lifts attempt. The course was marked by clinical improvement with the disappearance of low back pain and normalization of creatinine.

Subsequent management consisted of repermeabilization by endoscopic resection of the trigonum bladder under fluoroscopic control (Fig. 1) with injection of methylene blue through the nephrostomy (Fig. 2) and mounting of the double j stent on the support (Fig. 3 and 4) with removal of the nephrostomy.

Fig. 1. Fluoroscopic control.

Fig. 2. Methylene blue injection.

Fig. 3. Mounting of the double j on the support

Fig. 4. Double j after ablation of the nephrostomy.

III. DISCUSSION

Known for its high incidence in developing countries [1], urogenital tuberculosis is marked by its inflammatory sequelae and possible progression to renal failure or other complications [2].

The clinical is polymorphic, typically associating pollakiuria, urination burns and to a lesser degree pyuria [3].

At the stage of complications, lumbar pain can be dull or acute like renal colic [4]-[6] which can be explained by different mechanisms: stenosing ureteritis, temporary obstruction by a stone or caseous debris.

Most often, renal function is retained, but there may be decreased secretion related to either tuberculous lesions or with the resulting obstructive syndrome.

For a detailed study of the urinary tree, intravenous urography (IVU) [7]-[9] can detect either functional, morphological or pyelocalicular anomalies including ureteral anomalies as in our case, correspond at the beginning to the tuberculous ureteritis manifested by blurred walls, fine ulcerations, hypotonia with loss of peristalsis responsible for a ureter that is too clearly visible at all times, at an advanced stage ureteral fibrosis sets in and manifests itself in ureteral strictures which can be multiple and layered. The succession of narrowed and dilated segments gives the classic “pearl necklace” appearance.

All ureteral segments can be involved up to the ureteral meatus the involvement of which can make believe in a mega-ureter or a reflux ureter.

Ultrasound is less efficient than IVU or computed tomography but keeps its place in cases of impaired renal function.

CT is more sensitive than IVU for the detection of functional abnormalities, parenchymal calcifications, but especially for peri-renal and peri-vesical analysis.

MRI indications are reserved for cases where the UIV-CT pair do not specify the nature of the obstacle, or in the presence of a contraindication to the use of iodine products, especially in cases of renal failure or pregnancy [7]-[9].

The antegrade or retrograde opacifications make it possible to specify the exact site and the extent of the stenosis and also to guide the placement of a stent as the case in our patient [7].

The treatment of ureteral strictures which are localized or which predominate in the last few centimeters of the ureter consists of a ureteral modeling by placing instead of a ureteral catheter [10], [11] intermittently “2 to 3 dilation sessions per month for 4 to 6 months”, the results of this attitude seem interesting for KERR [12] and O'FLYNN [13]: 108 ureteral strictures were thus treated, with 89 good results, or permanently “leave a ureteral catheter in place for 8 to 21 days”; this method gives excellent results on stenosing lesions recent and still evolving. The failures are said to be due to the age of the lesions. But in front of the character harmless to the procedure, it deserves to be tried in almost all cases before considering surgery.

As for reconstructive surgery, the technique chosen will depend on the extent of the stenosis, we can have either:

- ✓ Ureteral resection followed by end-to-end anastomosis in the short iliac and lumbar stenosis [14], [15].

- ✓ Segmental ureteroplasty by graft: in strictures long and multiple tuberculosis of the unilateral or bilateral lumbar

ureter [16], [17].

✓ In the event of pelvic ureteral stenosis, a reimplantation into the bladder [18].

Given the progressive nature of the disease, and in order to watch for complications, ultrasound monitoring and IVU should be performed in the 3rd, 6th, 12th, 18th and 24th months, then once a year for 5 years [19].

In addition, it is imperative that no surgery is undertaken before that medical treatment has not been conducted for at least 4 to 6 weeks.

IV. CONCLUSION

A fairly frequent disease and a codified treatment, urogenital tuberculosis remains a challenge for the urologist when diagnosing and monitoring “stenosis ++” complications in order to allow early and harmless intervention such as endoscopic repermeabilization.

REFERENCES

- [1] Zellweger JP, Posey DL (2017) Migrant screening for tuberculosis and LTBI in Europe. *Int J Tuberc Lung Dis* 21(8):835. <https://doi.org/10.5588/ijtld.17.0374>.
- [2] de Daher EF, Silva GB Jr, Barros EJ (2013) Renal tuberculosis in the modern era. *Am J Trop Med Hyg* 88(1):54–64. <https://doi.org/10.4269/ajtmh.2013.12-0413>.
- [3] Cherkaoui A. Aspects actuels de la tuberculose urogénitale. Thèse de médecine, rabat, 1987 n 359.
- [4] Benchakroun A, Marzouk M., Hachimi M. La tuberculose urogénitale à propos de 270 cas. *Acta Urol. Belg.*, 1987, 55(4): 535–541.
- [5] Benjelloun S., Meziane F., Elmrini M., Bennani S. La tuberculose urogénitale à propos de 70 cas. *Arch. Inst. Pasteur Maroc*, 1992, 7: 15–26.
- [6] Sghaer S., Gannoni A., Jeddi M. La tuberculose urogénitale à propos de 20 cas. *Tunisie Méd.* 1981, n 6.
- [7] En-Nouali H., El Fenni J., Mahi M., Chouir S., Amil T. Benameur M., Ghadouane M. Tuberculose urogénitale: apport de l'imagerie, à propos de 50 observations. *Journal de radiologie*, 10, octobre 2008, p 15–35.
- [8] S. Lezar, A. Adil, R. Kadiri. Tuberculose urogénitale: place de l'imagerie. *J. Maroc Urol.* 2006; 1: 3-6.
- [9] Andre A. Figueiredoa, António M. Luconb, André N. Arvellos, Cláudio O.P. Ramosa, Antonio C.T. Toledoa, Renato Falci Jr., Cristiano M. Gomesb, Fernando E.Q. Recaverrena, José Murillo B. Nettoa, Miguel Srougib. A better understanding of urogenital tuberculosis pathophysiology based on radiological findings. *European Journal of Radiology* 4412, 2009.
- [10] La tuberculose urogénitale en 1974 à propos de 52 observations. *J.Urol. Nephrol.* 1974, 80, 10 -11, 883- 900.
- [11] Aulagner, Dubernard J.M, Perrin J. Tuberculose uro-génitale et chirurgie. *Lyon Méd.*, 1976, 241 (9): 623- 626
- [12] Kerr WK., Gale CL., Strthers NW. Prognosis in reconstructive surgery for urinary tuberculosis *Br. J. Urol.* 1970, 42 (6): 672–678.
- [13] O'flynn JD. hydrostatic over distension for contracted tuberculosis bladder: a review of 61 cases. *Eur. Urol.* 1997, 3 (2): 672–678.
- [14] Abbou C.C., Kouri G., Chopin D. Traitement des sténoses urétérales tuberculeuses. *Ann. Urol.*, 1982, 16(5): 304-306.
- [15] Benchakroun A., Lakrissa A. Meziane M. A propos de 19 cas d'obstruction de l'uretère lombo-iliaque. Discussion du rapport de la 67ème session de l'AFU, 1973, p313-316.
- [16] Benchakroun A., Abbaka T., Lakrissa A. L'uretéroplastie segmentaire bilatérale par greffon iléal suspendu dans les sténoses tuberculeuses de l'uretère lombaire. *Acta Urol. Belg.*, 1987, 55: 591-595.
- [17] Benchakroun A., Lakrissa A. Le remplacement de l'uretère lombaire par un greffon iléal suspendu à propos de 2 observations. *Maroc Med.*, 1980, n 2: 91-96.
- [18] Aboulker P. Progrès en urologie. Urographie par perfusion, p11-23. Traitement chirurgical conservateur de la tuberculose rénale, p 441-475. Substitution de l'uretère, p: 505-525. Substitution totale de la vessie, p: 929-968.
- [19] Cooper H., Robinson E. Treatment of genito urinary tuberculosis. *J. Urol.* 1982, 40, 333-340.