

Ureteral Hemangioma: a clinical case report

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Abstract. The most greater part of the tumors ureteralis are of malignant nature, they are verified especially in the elderly patient and they have a preference for the distal third of the ureter. Of the tumors benign ureteral, the emangioma is a very rare vascular neoplasm. The symptoms aspecifics of presentation are: hematuria, colic type pains, hydronephrosis and bladder inflammation. Thanks to the refinement of the radiological techniques (Urography, CTscan and eventually the ascending pyelography) and also to the simultaneous aid of the anatomopathologist, it is possible to obtain an accurate description of this pathology in a precocious stage in order to carry out a conservative approach. The peculiarity of the clinical case from us described depends on the fact that it deals with an occasional find, reaches our observation for appearance of severe hydronephrosis caused by ureteral stones, resolved him with methodic endoscopic.

Key words: ureteral hemangioma

Introduction

Although the diagnosis of ureteral tumor is rather uncommon, in the last years an increase of its incidence has been recorded.

These tumors are often underestimated and are diagnosed during surgery. Many of them are malignant, occur above all in old patients, and affect the distal third of the ureter. Benign ureteral tumors are less frequent, but they can't be distinguished, from ones malignant before surgery. Fibroma are the most frequent, whereas hemangiomas are extremely unusual.

Case report

We focused our attention on a 37 year old male patient, that came to our attention after a colic-like pain, on his left side.

Ultrasonography showed severe left hydronephrosis and ureterectasis until the distal segment. Urography (Figs. 1, 2) confirmed left hydronephrosis and aroused suspicion of distal ureter stone disease.

Renal scintiscan showed an enlarged left kidney with low function and hydronephrosis.

Blood tests pointed out normal renal function. The patient underwent ureteroscopy, that showed a tumor protruding from the left ureteral orifice (Fig. 3) which was biopsied for an extemporaneous histological test: the diagnosis was hemangioma.



Figure 1. Urography



Figure 2. Urography



Figure 3. Intra-operative vision

The endoscopic resection of the tumor was performed until an apparently uninjured tract of the intramural portion where some little stones tenaciously adherent to the mucosa were observed and labily cleared away by laser lithotripsy.

The endoscopic examination showed a proximal ureter without lesions.

A double "j" type ureteral tutor, was left in place for 4 weeks. Definitive histological test confirmed the extemporaneous diagnosis of hemangioma.

Post-operative course was uneventful and after 1 year, the patient is alive and free of disease.

Discussion

Ureteral hemangioma is an unusual disease, rarely described in literature: 198 cases of renal hemangioma, 106 cases of bladder hemangioma, 20 cases of urethral hemangioma, 6 cases of ureteral hemangioma and 1 case of prostatic hemangioma have been described (till today).

Hemangioma is a benign tumor of vascular origin, due to embryological remains of unipotent angioblastic cells that develop in an anomalous way inside the blood vessels.

Histologically, the lesion consists of lacunas, covered with endothelium, containing erythrocytes and organized thrombi. The symptoms of presentation are not specific: hematuria, colic type pains, hydronephrosis and bladder inflammation (1).

Hematuria and unspecified severe lumbar pain, more rarely colic, caused by the obstruction and straining of the excretory duct, do not allow a sure diagnosis and differential diagnosis with other pathologies (which are) more frequently observed (calculuses, cancers and pathologies of retroperitoneum), becomes necessary (2).

Urography, CTscan and, if needed, ascendent pyelography are the necessary tests for diagnosis. The attitude of the urethral wall, which keeps its morphology and properties in benign tumors for the lack of infiltration and periuretrite (common in epithelial cancers instead) so that the peduncolate cancer can be dragged down even for a few centimetres by the peristaltic effect with the involvement of its base of implant (intussusception), is typical. The report of neoformation, which protrudes in a rhythmic and synchronous way with peristaltic movements from the homolateral meatus, is frequent. Cystoscopy is potentially useful since it may identify the site of bleeding, if this one is running its course, and may show in some cases such an advanced intussusception that the polypus protrudes from the ureteral orifice in a steady or intermittent way. In such cases biopsy is necessary to determine surgical strategy (2).

Another important aspect is the synchronous association between ureteral and bladder cancer which occurs in 2% of the cases. The presence of papillary cancer in the bladder that may be checked up on with

cystoscopy, affects on the anatomo-pathological interpretation of a radiological ureteral minus (2).

An important aid comes from urinary cytology, considered as one of the most important predictive factors of malignancy (3).

The classic aggressive therapeutic approach, was represented by nephrectomy and ureterectomy as suggested by Albarran; Marion extended the resection to the portion of bladder concerning the ureter (4).

The reasons for this aggressive approach were due to the fear of a possible metastatic scattering and to the fact that it was not possible to establish if the cancer was benign or malignant before surgery (4).

On the contrary, Puigivert osserved that a classic radical operation should not be executed since better results can be reached with less invasive operations; in particular, when the neoplasia concerns the third inferior of the ureter he considers appropriate a resection of the ureter and its replacement with an intestinal loop (5).

In 1967, Datchary referred of a little peduncolated hemangioma of the ureter that was treated with the removal and coagulation of the base implant (6).

Hemangioma also spontaneously regress as a result of a fibrosclerosis and therefore, if asymptomatic, do not need any treatment (1). Moreover we mention the emblematic experience of Khastgir who reported the case of a patient suffering from persistent hematuria with urography that suggested for CCT of the lower ureter, (that was) later confirmed by a retrograde ureterography. The patient underwent nephroureterectomy and the definitive histologic examination revealed a hemangioma. Even if ureteral hemangioma is a benign neoplasia, its diagnosis can be reached after radical surgery and the rarity of its incidence partly justifies a similar approach, especially in presence of generous hematuria (7).

Currently, thanks to the improvement of radiological techniques and also to the simultaneous aid of the anatomopathologist, it is possible to obtain an ac-

curate description of this pathology in a precocious stage in order to carry out a conservative approach.

Conclusion

Ureteral hemangioma is a very rare benign vascular neoplasm. The peculiarity of this clinical case depends on the fact that it was an occasional report, solved with an endoscopic approach. In fact, the patient came to our observation because of severe hydronephrosis caused by ureteral stones. Frozen biopsy taken during the surgical procedure allowed a diagnosis of hemangioma with the consequent endourologic conservative treatment.

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