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Case Report

## Urethral Masson's Haemangioma: Case Report

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### Introduction

Intravascular papillary endothelial hyperplasia or Masson's hemangioma is a benign vascular proliferative lesion that is typically located in the subcutaneous vessels of head, neck, fingers and trunk [1]. Symptoms are variable, such as bleeding plus other symptomatology depending on the location.

We present a case of Masson's hemangioma in male anterior urethra. There is only one case described in the literature with location at the urinary tract [2], in female urethra, which dates from 1983.

### Clinical Case

55-year-old man who referred lower urinary tract symptoms for a month such as increased urinary frequency, decreased flow (having become almost filiform) and intermittent painless urethral bleeding. As medical history, he only presented a urethral meatotomy with the age of 33.

At the physical exam an indurated area was palpated in penile urethra 2 cm far from the meatus, without observing stenosis at it.

As additional examinations, urological ultrasound was normal and flexible urethroscopy was performed, where a raised lesion was observed few millimeters far from the meatus, with dark appearance, less than 1 cm in diameter, friable and bleeding.

The lesion was easily removed endoscopically (Figure 1.), being sent to Pathological Anatomy in order to analyze both the injury and the base.

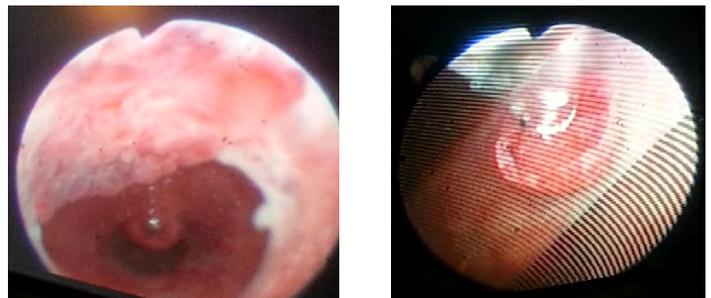
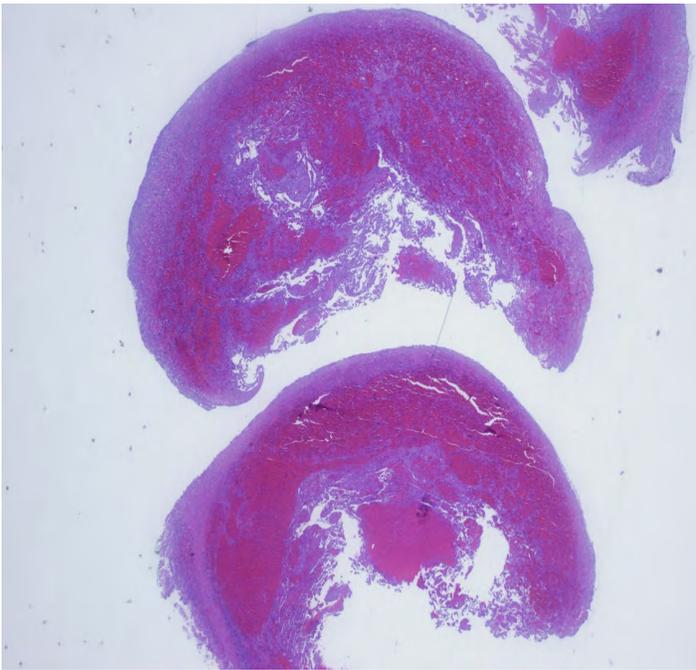


Figure 1

He went home the same day after urinating without problems as a bladder catheter had not been necessary.

The histopathological result was a partially necrotic Masson's hemangioma (intravascular papillary endothelial hyperplasia) of urethra, without evidence of injury at the base that had been sent independently. In the detailed microscopic information of the surgical specimen (Figure 2) it informed about a mesenchymal benign partially necrotic tumor of vascular lineage, hair character, constituted by dilated irregular vessels interconnected between them with development of pseudopapillary structures lined by flattened well differentiated epitheli-

um and without atypia.



**Figure 2**

Hematuria and urethral bleeding stopped a few days after surgery, recovering the caliber and strength of urinary flow, being free of symptoms at the time of the clinical visit 3 months later. An urethrocytoscopy was made to confirm the appropriate cicatrization and the absence of recurrence.

## Discussion

Primary urethral tumors are rare, most of them are malignant. Predominant histological type is squamous (55%) carcinoma, followed by transitional cell carcinoma and adenocarcinoma (15% respectively). The rest of non-epithelial urethral tumors (fibromas, leiomyomas, vascular tumors) are extremely rare [3].

Vascular tumors of any location are predominantly benign, and hemangiomas are the most common.

Hemangiomas are benign neoplasias in which there is an increase in the number of normal and abnormal vessels. They are probably originated from embryonic remains which fail to develop normal blood vessels. It is often difficult to distinguish clearly between what may correspond to neoplasia, hamartoma or malformation, reason why there are different theories. There are basically two types: those that are more or less localized in an area (the most common) and those affecting large sections of the body. Most of hemangiomas remain with very different reactive capacity and there are several types according to morphology and histopathology: capillary hemangioma (including juvenile type, which as exception to the others, par-

ticularly can disappear), cavernous, venous, arteriovenous, epithelioid, granulation tissue type or mixed type [4].

Urethral hemangiomas are rare benign vascular lesions that vary in size and usually begin with hematuria or urethral bleeding [5-7].

The intravascular papillary endothelial hyperplasia or Masson's hemangioma is a benign vascular lesion that is distinguished from hemangiomas because it follows an organized pattern around a small thrombus. It was first described by Masson in 1923, being called "intravascular vegetating hemangioendothelioma", who advised about its high histological resemblance to angiosarcoma. Clearkin and Enzinger in 1976 used the term "intravascular papillary endothelial hyperplasia", that has been the most accepted and it is currently used [7]. Since then, other names such as intravascular angiomatosis, intravascular pseudoangiosarcoma or Masson's pseudoangiosarcoma have been used.

There were theories about the possibility of traumatic events as etiologic factors, but they have been seen in a few cases [8]. Histologically, a thrombus comes up and starts being surrounded by endothelial cells, which in addition with the growth of capillaries in the area of attachment of the thrombus to the vessel wall creates the appearance of papillary projections. Once organized thrombus disappears, these projections remain giving the similar appearance to angiosarcoma [9].

Malignant tumors apparently developing within large vessels may occur but angiosarcomas confined largely within vascular channels are uncommon. Frequent mitoses, foci of necrosis, and solid cellular areas without vessel formation are features present in most angiosarcomas. However, sometimes the diagnostic is not as clear because there are small capillary channels in the thrombus with multiples layers of endothelial cells, without solid cellular areas, being difficult to distinguish reactive from neoplastic endothelial proliferations. Lesions confined to the lumen of large vessels should be interpreted as neoplasms only with extreme caution [10].

From the clinical point of view, because of the nonspecific symptoms with which it is presented, it can be confused with other pathologies, either obstructive as stenosis or urethral stones or other vascular lesions urethral not so uncommon in the case of female lower urinary tract such as wattles or varices.

Once the lesion is diagnosed by endoscopy, surgical treatment consists in complete resection and histological study is very important to rule out the presence of atypia and make distinction with angiosarcoma, since treatment and prognosis differ radically. In case of confirmation of benign lesion, prognostic is excellent. It would be recommendable an endoscopic revision after 2-3 months to confirm the absence of recurrence or in-

complete resection, followed subsequently by annual revisions if absence of symptoms.

### Conclusions

Urethral Masson's hemangioma is a rare vascular tumor. It causes nonspecific symptomatology with urethral bleeding or hematuria because of its vascular origin as well as obstructive lower urinary tract symptoms because of its own growth. Both diagnosis of the lesion and treatment are endoscopic. Histological study is important to make the differential diagnosis with angiosarcoma. Endoscopic revisions should be done each year and prognostic is excellent if excision is complete.

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