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Case Report

Urethral Haemangioma–A Rare Cause of Bothersome Lower Urinary Tract Symptoms

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ABSTRACT

Urethral haemangiomas are rare entities with around 100 cases reported. The clinical features of this entity may be identical to those of benign prostatic enlargement. In this article, we present a case of a male in his sixties who presented with urinary symptoms refractory to medical management for presumed benign prostatic enlargement. Subsequent cystoscopy revealed a 20 mm urethral mass that was resected and found to be a urethral cavernous haemangioma. The patient's symptoms resolved following the excision.

Keywords: Haemangioma; Urethra; Urinary tract

INTRODUCTION

Haemangiomas are benign vascular proliferations that can arise in various locations including the liver and skin. There are around 100 published case reports of urethral haemangiomas. Urethral haemangiomas typically cause clinical features such as haematuria, haematospermia or urinary symptoms such as frequency. It is important to be aware of urethral lesions including haemangiomas as a differential diagnosis when treating patients with the above clinical features as they may be indistinguishable from other entities such as benign prostate enlargement or urethritis. Urethral lesions can include both benign entities such as fibro epithelial polyps and malignant tumors such as urothelial carcinoma. Urethral lesions need to be considered when a male patient has urinary symptoms but the prostate does not feel enlarged on digital rectal examination.

Urethral haemangiomas are an example of a benign urethral lesion that may result in a poor response to medical treatments for what is assumed to be symptoms related to benign prostatic enlargement. Urethral haemangiomas can exist alongside benign prostatic enlargement, as in the case we present.

CASE PRESENTATION

A sixty seven year old male patient presented to an accident and emergency department due to voiding lower urinary tract symptoms mainly in the form of hesitancy. Moreover, the patient reported ongoing urgency and nocturia for the preceding six months. Prior to his secondary care presentation, the patient had previously consulted his general practitioner and had been prescribed Tamsulosin. There was no history of haematuria, haematospermia, documented urinary tract infections or weight loss. The patient had a past medical history of angina, peripheral vascular disease, recurrent leg ulcers and hypertension. His regular medications were Doxazosin, Clopidogrel, Losartan, Bisoprolol, Gabapentin and Tamsulosin.

A digital rectal examination revealed a moderately enlarged, firm prostate. A urine dipstick did not show haematuria, leucocytes or nitrite. Total PSA was 0.7 ng/ml, creatinine 69 µmol/L and eGFR>90ml/min. A urine culture showed mixed growth. No antibiotics were prescribed as the clinical presentation was not consistent with UTI. The patient was commenced on solifenacin 5 milligrams once daily to alleviate his storage urinary symptoms. Given the persistence and severity of the patient's symptoms despite medical treatment, an outpatient flexible cystoscopy was arranged. The prescribed solifenacin did not make any difference to the patient's symptoms and was therefore discontinued after a few weeks.

The cystoscopy showed a mildly occlusive prostate and a 20 mm polypoid prostatic urethral mass extending from just proximal to the verumontanum to the bladder neck. The lesion overarched the bladder neck and was noted to be very close to the ureteric orifices (Figure 1).

Four months after the cystoscopy the patient underwent an elective transurethral resection of his middle prostatic lobe and a resection of the urethral polypoid lesion, which provided immediate benefit to his symptoms. The resected lesion was sent for histology.

The histological specimen consisted of prostatic tissue containing clusters of dilated vascular channels possessing a thin smooth

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muscle wall. There was no evidence of malignancy in the sections examined. The conclusion was that the curettings represented a polypoid cavernous haemangioma arising in the prostatic urethra (Figure 2).

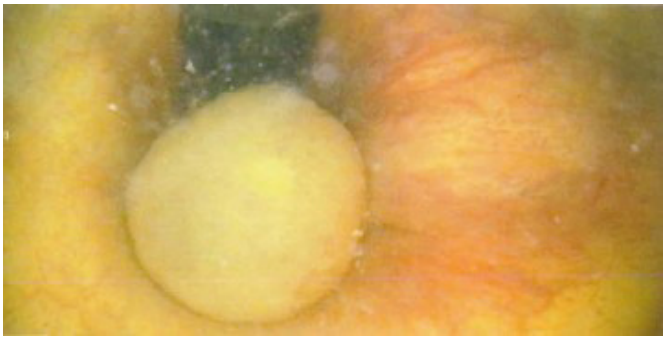

Figure 1: Cystoscopic view (J manoeuvre) showing a 20 mm soft lesion extending from the prostatic urethra into the bladder neck.

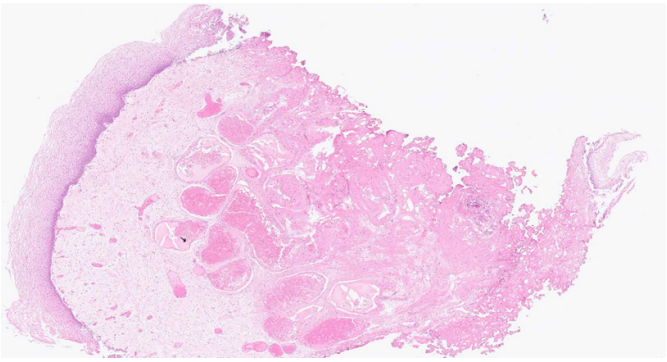

Figure 2: Micrograph of the urethral lesion showing the haemangioma.

Two months after the surgery, the patient was followed up by a telephone consultation, he reported that his urinary symptoms had resolved, he had stopped taking tamsulosin and reported no urinary symptoms. The patient was therefore discharged from urology follow up.

RESULTS AND DISCUSSION

Genov, et al. Stated that there are around 100 reported cases of urethral haemangiomas, with cavernous haemangiomas being the most common type. The authors suggest that smaller haemangiomas (7 mm in the case that they report) are more likely to cause haematuria as the primary symptom, whereas larger haemangiomas (20 mm in our case) are more likely to cause obstructive symptoms. These same authors also commented that the pathogenesis of urethral hemangiomas is unclear, with a suggestion that they may result from a failure of unipotent angioblasts to develop normally [1].

Most published case reports of urethral haemangiomas concern adult males, but they have also rarely been reported in females and children [2,3]. Saito et al. [4] published a review of 20 male patients citing the entity as a rare cause of haematuria, haemtospermia and urinary retention, whilst also noting the propensity for urethral haemangiomas to arise between the verumontanum and external urethral sphincter, as in our case. Efithimiou et al. [5] presented a case of a urethral cavernous haemangioma that caused a 27-year-old man to present with intermittent urethral bleeding, noting that posterior urethral haemangiomas typically arise between the verumontanum and external urethral sphincter. Yong et al. [3] presented two cases of urethral cavernous haemangioma, emphasizing that urethral haemangiomas typically cause painless frank haematuria, meaning that they can be mistaken clinically for entities such as seminal vasculitis, prostatitis or urethritis.

Treatment for urethral haemangiomas ranges from conservative approach if the lesion was found incidentally and not causing bothersome symptoms, to medical options such as beta blockers [1,6]. Surgical interventions include transurethral resection, laser ablation and embolization. Pre-operative MRI imaging may be required to examine the extent of the lesion prior to surgery. Complications of excision can include iatrogenic stricture caused by scarring.

CONCLUSION

To summarise, urethral haemangiomas are a rare cause of various presentations such as haematuria, haematospermia, penile bleeding and, rarely, urinary symptoms such as hesitancy and urinary retention. As our case demonstrates, urethral haemangioma should be considered in male patients with urinary symptoms who do not have an enlarged or firm prostate on examination and/or those failing to respond to medical treatments for presumed benign prostatic enlargement. Although transurethral resection is minimally invasive and regarded as curative, other possible surgical modalities include laser ablation or image-guided embolization. Practitioners also need to be mindful that such patients can develop an iatrogenic stricture following resection of urethral lesions such as haemangiomas.

PATIENT PERSPECTIVE

"The period between the endoscopy, the surgery and receiving my results were awful both physically and mentally and I was fearful that I might have cancer. At the time of the surgery, I had a general anesthetic. The first hour after I woke from surgery was extremely painful, I was experiencing a burning pain in the groin. The pain eased with time, although it was around 10 days before I could properly walk again. My situation is almost back to normal now and I can urinate as required."

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

De-identified data used to support the findings of this study are available from the corresponding author upon request.

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