

# Urethral Hemangioma: A Rare Cause of Bleeding per Urethra

Deepak Bolbandi<sup>1</sup>, Shubhatara Swamy<sup>2</sup>, Raghuveer<sup>3</sup>

<sup>1</sup>Assistant Professor, Department of Urology, Raja Rajeswari Medical College & Hospital, Bengaluru, Karnataka, India, <sup>2</sup>Assistant Professor, Department of Pharmacology, Vaidehi Medical College, Bengaluru, Karnataka, India, <sup>3</sup>Resident, Department of Urology, Raja Rajeswari Medical College & Hospital, Bengaluru, Karnataka, India

## Abstract

Urethral hemangiomas are rare benign tumors that may present as urethral bleeding. Most common among the urethral hemangiomas is the cavernous type. Hemangiomas can be solitary or multiple. They may be located in the anterior urethra or the posterior urethra depending on which the symptomatology varies. Urethroscopy is the best diagnostic procedure. There are various treatment modalities depending on number, size, and site. We present a case report of a 20-year-old male with multiple lesions in the anterior urethra who presented with urethral bleed. He was initially managed by fulguration of the lesion. As the symptoms recurred after 1 month, excision followed by buccal mucosa urethroplasty was performed.

**Keywords:** Hemangioma, Hematuria, Urethral diseases

## INTRODUCTION

Urethral hemangiomas are benign vascular rare tumors of which origin remains an enigma. It has been suggested that they originate from unipotent angioblastic cells which fail to develop into normal blood vessels. Histologically they consist of thin-walled vascular spaces lined by endothelial cells. The most common type of it is cavernous hemangioma.<sup>1</sup> Treatment may be extremely challenging and ranges from transurethral approach to open reconstructive surgery.

## CASE REPORT

We present 20-year-old male patient who presented with a history of bleeding per urethra in the night during sleep and erection. He underwent ultrasound abdomen, computed tomography scan and urine analysis. The reports were normal. As the completion of workup, he

underwent cystoscopy and was found to have multiple cherry red swelling in the anterior urethra in the penile region. He underwent fulguration of the urethral lesion. Patient was free of symptoms for 1 month when he presented with once again the same symptoms. He was planned for definitive treatment. His urethral lesions were excised (Figure 1) and buccal mucosa urethroplasty was done (Figure 2). He withstood the procedure well and the patient was relieved of his symptoms. Histopathology of the specimen revealed hemanigoma of the urethra.

## DISCUSSION

Urethral hemangioma is a rare, unusual entity. Exact incidence of it is unknown. However, a study conducted in Russia present 107 benign tumors of the male urethra, polyps constituted 22.4%, and angioma, 10.4%.<sup>2</sup> Hemangiomas are benign tumors. They are believed to be congenital in origin. They are thought to be arising from the embryonic rest of unipotent angioblastic cells that failed to develop into blood vessels. Mean age of presentation is 22 years, while age ranges from 3 to 68 years. These hemangioma can be associated with cutaneous lesions and may also be associated with Klippel–Trenaunay syndrome.<sup>3</sup>

Hemangiomas of the anterior urethra may present as urethral bleeding and lesions located in the proximal

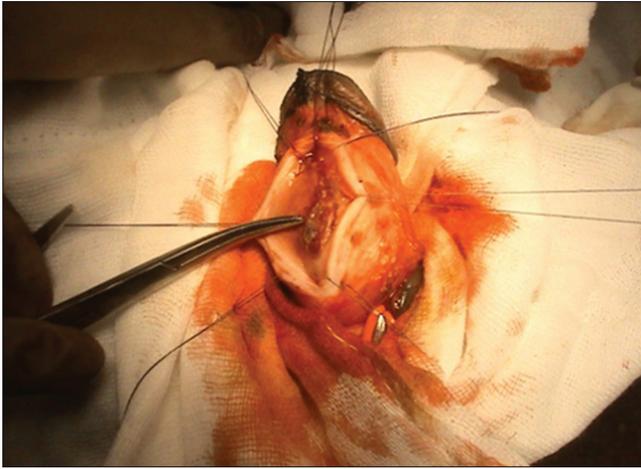
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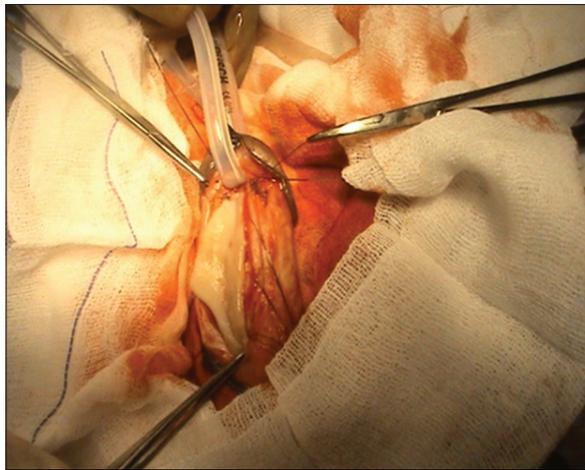
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## Corresponding Author:

Dr. Raghuveer, Department of Urology, Raja Rajeswari Medical College & Hospital, Kambipura, Kengeri Hobli, Bengaluru - 560 074, Karnataka, India. E-mail: 21raghuveer@gmail.com



**Figure 1: Penile urethra showing multiple hemangiomas**



**Figure 2: Buccal mucosa urethroplasty**

urethra usually present as hematuria, urinary retention with blood clots, post-erection or post-ejaculation hematuria and hemospermia.<sup>1</sup> Large lesions may present with obstructive urinary symptoms or protrude through the urethral meatus.<sup>1,2</sup>

Urethroscopy is the diagnostic method of choice as it defines the site and extent of the lesions and facilitates the preoperative plan of surgery. Fibro-epithelial polyps, foreign

body granulomas, urethral warts have to be considered in the differential diagnosis.

Asymptomatic lesions do not require any treatment, but extensive lesions may require open excision and urethral reconstruction.<sup>4</sup> Treatment with laser may obviate the need for open and extensive surgery. Hemangiomas treated with kalium titanyl phosphate, Nd: YAG and holmium laser all reported excellent results.<sup>5-7</sup> Furthermore, selective arterial embolization has been reported.<sup>8</sup> Electrofulguration has been used in the past but carries the risk of scarring.<sup>4</sup> Even though, urethral hemangiomas are benign tumors as they are known to recur, hence regular follow-up is essential.

## CONCLUSION

Hemangiomas even though rare should be considered in the differential diagnosis of urethral bleeding, especially in the absence of trauma history and radiologically detectable lesions in kidney or bladder. Cystoscopy is the diagnostic procedure of choice as it helps in pre-operative planning also. Small lesions can be dealt transurethrally while large lesions require excision and reconstruction.

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