

## UNUSUAL PRESENTATION OF URETHRAL CARUNCLE IN A 2 YEAR OLD CHILD: A CASE REPORT

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### ABSTRACT

*The most common lesion of the female urethra, are urethral caruncles. They are benign fleshy outgrowths at the urethral meatus occurring primarily in postmenopausal women, though occasionally found in premenopausal women and prepubertal girls. Miss FA was brought by her mother to the gynaecological emergency unit of our hospital on the 8th July, 2012 with 1 week history of a lump protruding through the vagina associated with recurrent vaginal bleeding. Examination under general anaesthesia revealed a sessile circumscribed mass protruding through the urethra. She had excision and electrocautery of this mass and histology confirmed urethral caruncle. We present a case of an unusual presentation of this condition in our environment. Early diagnosis and prompt treatment is essential to avoid potential complications.*

**Keywords:** Caruncle, child, urethral

### INTRODUCTION

Conditions affecting the lower genital tract of female children and adolescents are often significantly different than those seen in the adult. Urethral caruncles benign fleshy outgrowths at the urethral meatus<sup>1</sup>, are the most common lesion of the female urethra, occurring primarily in postmenopausal women, though occasionally found in premenopausal women and prepubertal girls<sup>1-3</sup>. Urethral caruncles are exceptionally rare in males<sup>1,4</sup>. The lesions usually originate from the posterior urethral lip, location other this have also been reported<sup>2</sup>.

Urethral caruncle was first described by Samuel Sharp in 1750<sup>5</sup>. The lesion appears as florid or dusky red in colour which may vary in size from 1-2mm to 1-2cm. It may be pedunculated or sessile; and may appear ulcerated, friable, velvety or haemorrhagic<sup>5</sup>.

The exact cause is not known, but is thought to be associated with estrogens deficiency<sup>1</sup>. Jeffcott however considered pseudo-caruncle as a result of urethritis, often accompanied by peri-urethritis and suggested that infections appearing in the tissues of true caruncles are secondary while those of pseudo-caruncle are primary and is the cause of hypertrophy of the tissue<sup>5</sup>.

Urethral caruncles may be asymptomatic or noticed as an incidental finding while evaluating for other diseases but for those that present with symptoms they may complain of lump at the urethral meatus or may present with symptoms such as light bleeding, dysuria, pain, or obstruction to urine flow. Microscopic haematuria and postmenopausal bleeding are other presentations. Bleeding may be associated with urination or it may be noted on toilet paper, feminine hygiene pads, or underclothes<sup>1</sup>.

## CASE REPORT

FA a 2year old girl was brought by her mother to the gynaecological emergency unit of our hospital on the 8<sup>th</sup> July, 2012 with 1 week history of a lump protruding through the vagina associated with recurrent vaginal bleeding which was initially slight but became heavier a day prior to presentation. There was no preceding history of trauma to the genitals or application of corrosives. There was no associated history of urinary retention or incontinence but the child cried on micturition and passed blood stained urine.

On examination she was clinically stable. Her pulse rate was 90 beats per minute and the blood pressure was 80/50 mmHg. Abdominal examination was unremarkable and the vaginal examination revealed normal female external genitalia with blood stained vulva. There was a red sessile lesion, circumscribed and protruding through the urethra which was friable and haemorrhagic. An opening was seen at the center of the lesion through which a feeding tube was passed and clear urine was expressed. Based on these findings an initial assessment of urethral prolapse was made and planned for excision and cauterization.

Her haemoglobin count was 10g/dl, Hb-genotype was AA and the renal function test and urinalysis was normal

She had examination under general anaesthesia, excision and electrocautery of the mass together with the urologist. The excised tissue was sent for histology. A size 12 Foley's catheter was passed and clear urine was seen draining for the bladder. She also had single gauze packed into vagina which was removed after 6 hours. Her postoperative recovery was uneventful and was discharged on prophylactic antibiotics to be reviewed in gynaecology clinic in 1 week. The urethral catheter was left in situ for 5 days.

A week later she was seen in the gynaecology clinic with no fresh complaints.. The catheter was removed. The histology confirmed urethral caruncle. The mother was reassured that it was a benign tumour. The girl was then discharged from the gynaecological clinic and placed on oestrogen cream.

## DISCUSSION

Urethral caruncle is the most common benign lesion of the female urethra, occurring primarily in postmenopausal women, with occasional occurrences in premenopausal women and prepubertal girls<sup>1-3</sup>. The presentation in this patient was as shown in figure 1.

Caruncles in prepubertal girls are quite rare and location other than the posterior lip of the urethra is quite rare too<sup>2</sup>. Only few cases (2 cases) in young girls have been reported in the literatures since 1964 and one of them was found at birth<sup>2,6</sup>. Our patient was only 2 years old and the lesion was not typical presentation of urethral caruncle as it appeared circumferential mimicking urethral prolapse and to the best of our knowledge the first of its type reported from this region.

Even though the exact cause is not known but appearance of the lesion at birth had suggested the possibility of it being congenital in aetiology. Jeffcott classified the lesion as true caruncle or pseudo-caruncle<sup>5</sup>. He defined the true caruncle as a vascular papilloma which presents as a scarlet polyp with a narrow pedicle invariably arising from the posterior lip of the urethral meatus and the pseudo-caruncle as a granuloma of the urethral meatus appearing as diffuse sessile dull red lesion<sup>5</sup> In this patient, the lesion was never noticed at birth and this made us to

suspect infection as the likely primary cause of the hypertrophy of the tissues as seen in pseudo-caruncles.

The symptoms of urethral caruncle include painful voiding in 51%; urethral bleeding in 49%, increased urinary frequency and urgency in 36% and appearance of a mass in 41% of cases<sup>5</sup>. Our patient had a lump protruding through the vagina, vaginal bleeding and cried on micturition suggestive of painful micturition.

Various forms of treatment have been reported in the literature. Some authors favour electro-coagulation or electro-excision, with electro-coagulation of the base of the lesion seems to be superior to excisional methods<sup>5,6</sup>.

Medical treatment with diethylstilbestrol was published in the literature<sup>7</sup>. It has also been stated that most urethral caruncles can be treated conservatively by warm sitz-baths and vaginal oestrogen replacement and that topical anti-inflammatory may be helpful. However, information on the efficacy of these conservative therapies is lacking in the literature<sup>8</sup>.

The treatment and recurrence of the lesion, seems to be interrelated. Some authors state that electro-coagulation or electro-excision, with electro-coagulation of the base of the lesion seems to be superior to excisional methods<sup>5</sup>. Other authors seem to indicate that various degrees of locally extended excision seem to be successful<sup>5</sup>. Surgical excision is the most preferred method among urologists<sup>9</sup>.

Surgical intervention is usually the treatment of choice for: patients with large symptomatic lesions; those with uncertain diagnosis; those with indurations around the caruncle; in cases of failure to respond to conservative therapy; atypical appearances; or growth over time are indications for excisional biopsy. It has been stated that tumors are found in about 2% of urethral caruncles<sup>10,11</sup>.

Our patient had electro-excision followed by electro-coagulation of the base and had done very well with no any post excision complication, or recurrence as shown in figure 2 and the histology confirmed urethral caruncle (figure 3).

## CONCLUSION

Urethral caruncle in pre-pubertal girls is a very rare condition worldwide<sup>1, 2</sup>. An unusual presentation in 2 year old girl has been reported. Various forms of treatment have been reported in the literature. This patient had electro-excision followed by electro-coagulation of the base of the lesion. High index of suspicion, early diagnosis and prompt treatment are essential to avoid potential complications.

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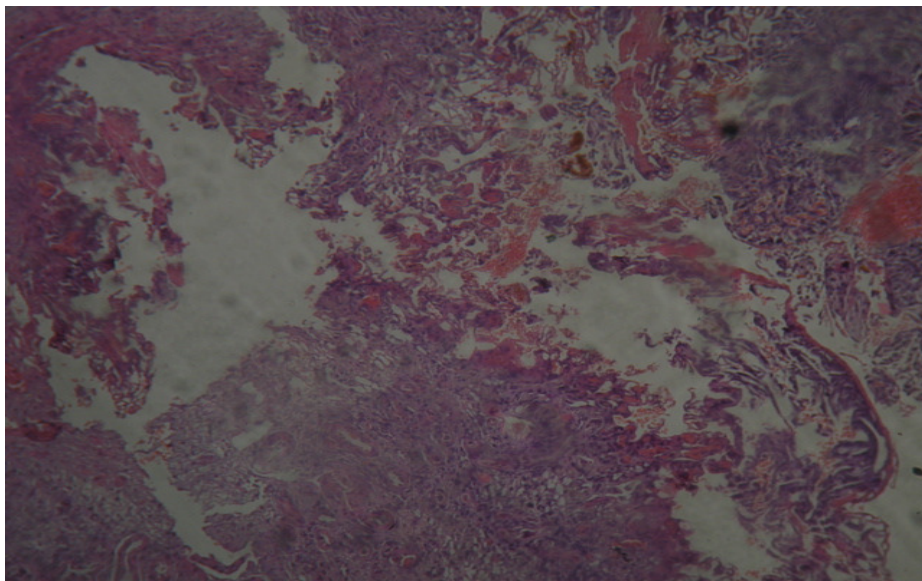
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**Figure1. Before excision.**



**Figure 2. After excision.**



**Figuer 3. Histology of Urethral caruncle**