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Urethral Caruncle: An Entity Not to Be Ignored

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Abstract

Introduction: Urethral caruncle is a benign lesion that develops on the posterior lip of the urethra. It is the most common benign lesion of the female urethra. It is asymptomatic in the majority of cases and its discovery is often fortuitous. When it becomes symptomatic, its management consists of local estrogen therapy or surgical excision. We discuss the clinical and therapeutic aspects of this entity through a case report. **Case:** This is a 59-year-old woman, diabetic and hypertensive on treatment, menopausal for 8 years. She was referred to us following the fortuitous discovery of a mass of the urethral meatus associated with mictional burning and dysuria. The clinical examination found a urethral swelling with a wide implantation on the posterior wall of the urethra. It was delivered through the urethral meatus and associated with mictional burning and dysuria. The treatment was surgical by ambulatory excision of the caruncle. The operating follow-up was simple. The histological study was in favor of a urethral caruncle. **Conclusion:** The urethral caruncle is a benign lesion of the postmenopausal woman that can mimic other malignant lesions of the urethra, hence the interest to excise any urethral lesion in order to perform its anatomopathological study.

Subject Areas

Urology

Keywords

Caroncule, Uretral, Surgery, Ambulatory

1. Introduction

Urethral caruncle is the most common benign lesion of the female urethra. It is a benign vascular lesion that develops on the posterior lip of the urethral meatus. It is the prerogative of menopausal women [1]. It was first described in 1750 by Samuel Sharp [2]. Although asymptomatic in most cases, it can nevertheless manifest by urethrorrhagia, dysuria, dyspareunia, hematuria and, exceptionally, acute retention of urine or a sensation of perineal pressure [3]. Treatment is indicated in symptomatic cases. When it is conservative, the treatment consists of the local intravaginal application of estrogenic topicals. However, after the failure of local treatment, surgical excision is indicated [4]. Microscopically, the lesion is composed of variable proportions: subepithelial inflammation, edema, vascularity, and fibrosis, associated with epithelial hyperplasia that may sometimes mimic a neoplasm [5].

In this case study we discuss the clinical and therapeutic aspects of urethral caruncle.

2. Case

We report the case of a 59-year-old woman, diabetic, hypertensive, and menopausal for 8 years, who has been complaining of painless urethral swelling associated with mictional burning and dysuria for 18 months. She was referred to us by our gynecological colleagues from another hospital. The clinical examination found a rosaceous swelling delivered through the urethral meatus, with a wide implantation on the posterior wall of the urethra. It is not painful to palpation (**Figure 1**). The gynecological examination found normal vaginal trophicity and a grade 2 cystocele (BADEN WALKER). The cytobacteriological examination of the urine was sterile and the abdominopelvic ultrasound findings were unremarkable.

We performed an excision of the caruncle under spinal anesthesia. A bladder catheter was placed to protect the anterior wall of the urethra. Hemostasis was controlled by 2 points with 3-0 Vicryl suture (**Figure 2**). The surgical specimen was sent for anatomopathological examination (**Figure 3**). This was an outpatient surgery with simple postoperative care. The bladder catheter was removed five days later (**Figure 4**).

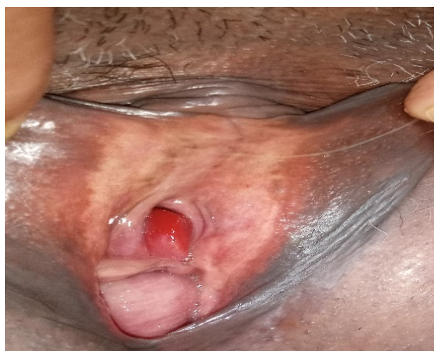

Figure 1. Urethral caruncle associated with a grade 2 cystocele.

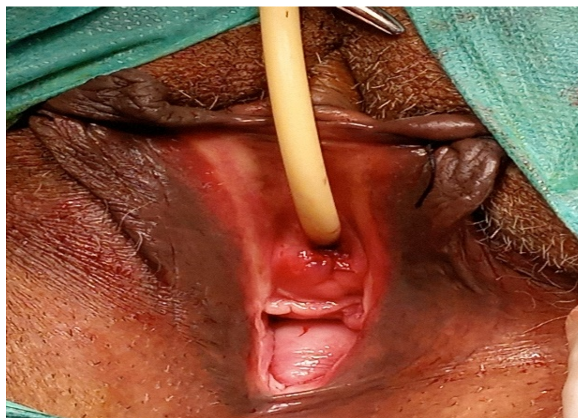

Figure 2. Appearance after excision and hemostasis.

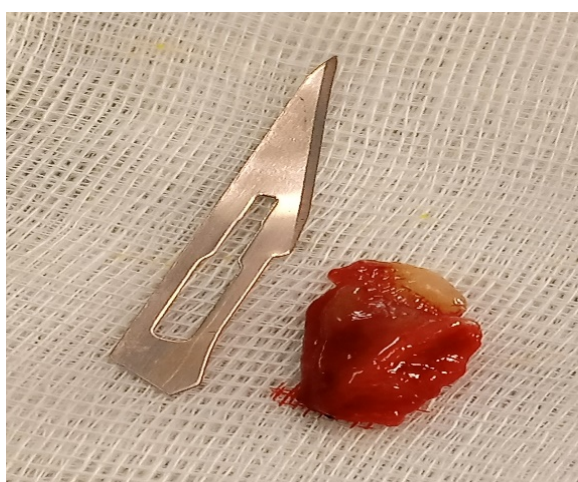

Figure 3. Operatory piece of the urethral caruncle.

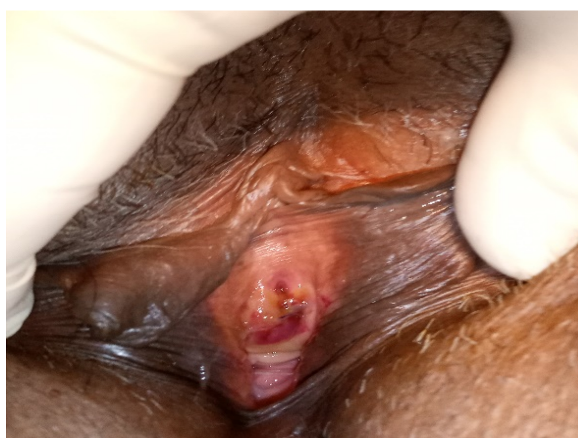

Figure 4. Appearance after removal of the bladder catheter.

The anatomopathological examination confirms the diagnosis by showing typical lesions: polypoid lesion lined by hyperplastic squamous epithelium with stromal inflammatory infiltrates and dilated blood vessels (**Figure 5**). The follow-up at M3 was satisfying.

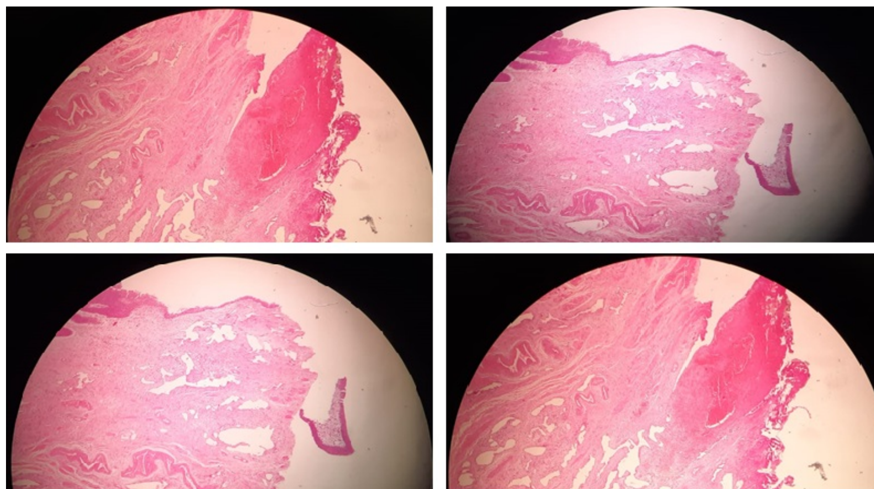

Figure 5. Microphotograph showing a polypoid lesion lined by hyperplastic squamous epithelium with stromal inflammatory infiltrates and dilated blood vessels.

3. Discussion

Urethral caruncle is a benign vascular lesion of variable size, often polyploid, that develops at the posterior lip of the female urethra. It affects in the majority of cases postmenopausal women, rarely girls before puberty and exceptionally men [5]. According to Ferrier, urethral caruncle can occur at any age between 4 and 90 years but with a predominance in post-menopause [6].

The etiopathogeny remains poorly understood, but some authors suggest that chronic inflammation of the urethra may be the cause. This theory is supported by the frequent presence of hemorrhages associated with chronic inflammation on histological examination [5]. Other hypotheses have been proposed in the literature: urethral congestion, chronic irritation, urethral trauma and osteogenic deficit [7].

Asymptomatic in the majority of cases, its discovery is often incidental [2]. In a retrospective study by Conces *et al.* the symptoms described were: pain, hematuria and dysuria in 37%, 27% and 20% of cases respectively [5]. In addition, isolated cases of acute retention of urine due to obstructive urethral caruncle have been reported in the literature [8].

Among the differential diagnoses that should not be overlooked are: melanoma [9], lymphoma [10], and urethral adenocarcinoma [11], therefore it is important to excise and analyze any urethral lesion meticulously.

Moreover, many authors recommend urethrocystoscopy before any therapeutic decision to eliminate a possible malignant lesion, especially in case of hematuria of uncertain origin [12].

The treatment of symptomatic urethral caruncle is initially conservative, combining local estrogen therapy and nonsteroidal anti-inflammatory drugs [2] [13]. Great responses to medical treatment have been described in the literature [14] encouraging this conservative approach. In case of persistent symptoms, surgical excision remains the most adopted technique by several authors. Sajadi

et al. recommended intraoperative urethral catheterization to avoid post-excisional urethral stenosis. The catheter will be maintained for 1 to 2 days. Hemostasis is ensured by suturing the edges of the excision with 3-0 or 4-0 Vicryl thread [2]. Our technique is similar to that described by Moreover, but urethral catheterization is maintained for 5 days to optimize urethral cicatrization. Park and Cho propose ligation of the base of the urethral caruncle with a 1-0 silk thread, which will allow it to fall in 7 to 14 days [15]. The advantage of this technique is that it is well tolerated and does not require any anesthesia or analgesia.

Urethral caruncle is a benign pathology with a good prognosis if it is isolated. However, no follow-up is recommended in the literature.

4. Conclusion

Urethral caruncle is a frequent and benign lesion in postmenopausal women. It is a rare reason for consultation in urology often explained by its clinical tolerance. In our context, a good collaboration between the gynecologist and the urologist would allow better management of this entity and avoid misrecognition of neoplastic lesions.

Its management remains uncodified but the presence of malignant lesions mimicking this condition requires excision of any urethral lesion in order to perform its anatomopathological study.

Conflicts of Interest

The authors declare no conflicts of interest.

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