

Urethral caruncle: Case report of a rare acute urinary retention cause

Soner Çoban, MD,* İsmail Bıyık, MD†

*Department of Urology, Şevket Yılmaz Training and Research Hospital, Bursa, Turkey; †Department of Obstetrics and Gynecology, Karacabey State Hospital, Bursa, Turkey

Cite as: *Can Urol Assoc J* 2014;8(3-4):e270-2. <http://dx.doi.org/10.5489/cuaj.1683>
Published online April 14, 2014.

Abstract

A urethral caruncle is a benign vascular tumour usually originating from the rear lip of the external urethral meatus and often observed in postmenopausal women. Urethral caruncle is not included within the list of bladder overdistension causes in women. We present urethral caruncle as a rare cause of acute urinary obstruction in a 41-year-old woman. The case was evaluated with physical examination and the bladder was evacuated with a 12-Fr urethral catheter. A pressure flow study was performed. The caruncle was excised under spinal anesthesia. There were no complications. The urethral catheter was withdrawn on the sixth day and she was discharged with local estrogen.

Introduction

Urethral caruncle is defined as a highly vascular polypoid lesion originating from the posterior wall of the external urethral meatus of women and usually does not exceed 1 cm.¹ It is the most common benign tumour of the female urethra after menopause. It consists of vascular connective tissue loosely surrounded with transitional and squamous epithelial cells. The most important risk factor in its etiology is hypoestrogenemia. Positive results have been reported with hormone replacement treatment.²

Case report

A 41-year-old female patient presented to the emergency department. She was unable to urinate and was referred to our clinic. The patient had overflow incontinence for about 2 years and had been urinating with the Credé's maneuver for 10 months. She had normal preoperative serum blood urea nitrogen (BUN) and creatinine levels. The physical examination revealed bladder overdistension. A 2 × 1.5-cm dark

red mass that was soft on palpation, originating from the posterior lip of the external meatus, was found while inserting a 14-Fr urethral catheter. Only a 12-Fr urethral catheter could be placed due to the meatal obstruction caused by the urethral caruncle. In total, 1500 cc residual urine was removed. A pressure-flow study was performed to evaluate the acute urinary obstruction. We found a normo-sensitive, hypocompliant bladder with normal capacity and an unstable detrusor with higher than normal pressure. The patient could not urinate during the urination phase. The VLPP (Valsalva leak point pressure) was negative (Fig. 1).

An 18-Fr cystoscopy was performed following the urethral dilatation under spinal anesthesia. The cystoscopy was normal and the symptoms were associated with the urethral caruncle. The caruncle was excised. No complication occurred during or after the operation. The urethral catheter was withdrawn on postoperative day 6. She had normal postoperative serum BUN and creatinine levels. Local estrogen creams were also applied during the postoperative period. The patient started to urinate easily after the caruncle excision (Fig. 2)

Discussion

Although a urethral caruncle can be seen in the prepubertal period, it is often observed in the postmenopausal period as in our case. A urethral caruncle does not cause symptoms in patients; it is a cosmetic disorder, but can very rarely cause acute urinary retention.³

Although our patient could not urinate before the surgery, as seen in the pressure flow study, she did urinate easily after surgery during the uroflow investigation. A urethral caruncle can signal certain disorders and these should be looked for. These disorders include urethral thrombosis, pseudoneoplastic lesion, lymphoma, clitoral vein thrombosis, ureteral polyps, malignant melanoma, carcinoma, intestinal heterotype, angiomatous lesions and distal urethral stenosis.⁴⁻¹⁰ Although the initial medical treatment of urethral caruncle is topical

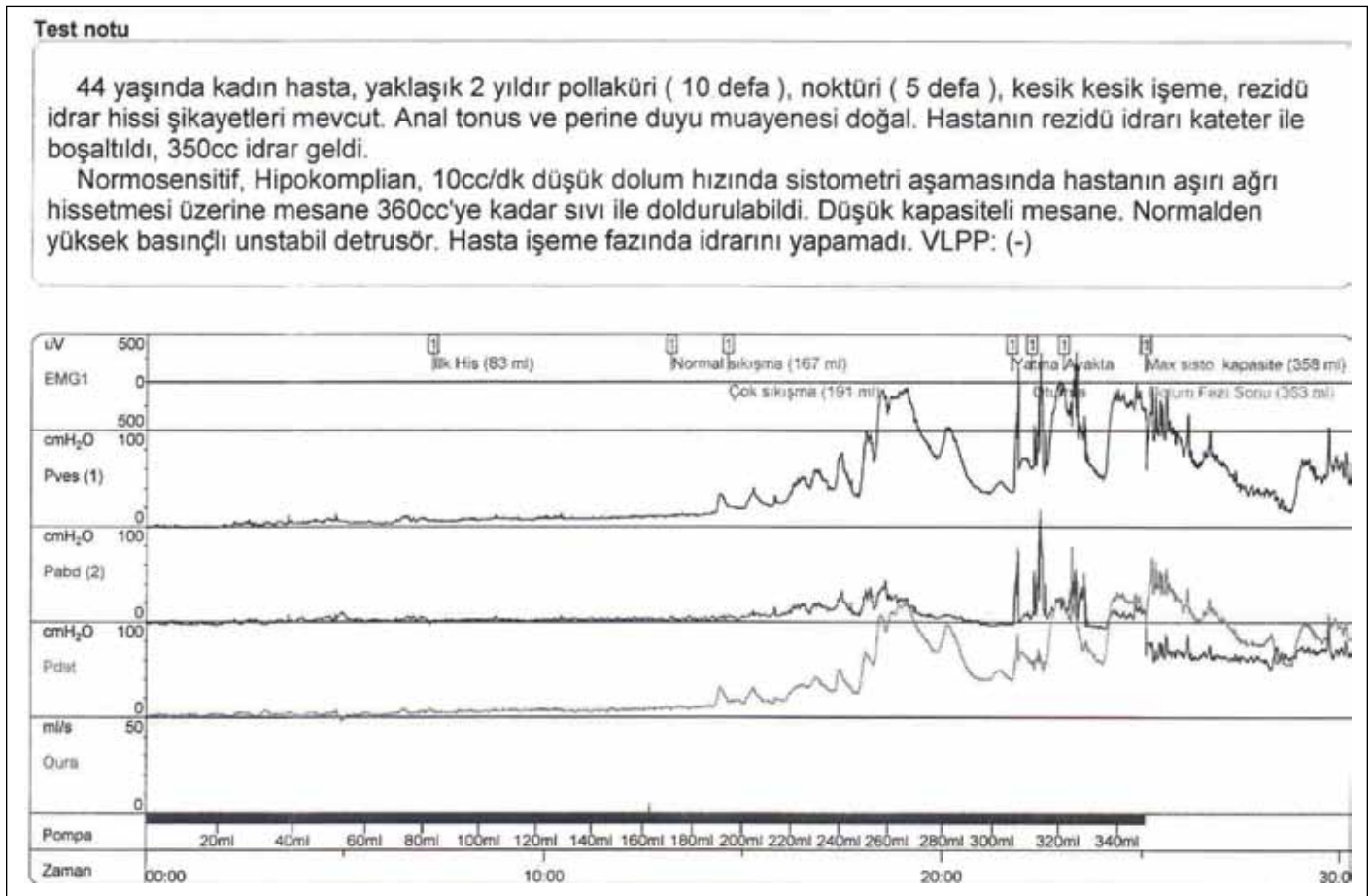


Fig. 1. Preoperative pressure flow study.

estrogen and anti-inflammatory treatment, we believe that the most effective form of treatment is total excision. Total excision is preferred because the mass can be large enough to make urinating difficult; there is also a small chance of malignancy. It can also be a sign of disease, such as carcinoma, so total excision is now favoured.

Conclusion

A urethral caruncle is rare among the causes of urinary retention. There is limited information on this subject. Pressure flow studies of the cases were not available in previous studies. Our case contributes to the literature in that we included a pressure flow study before and after the excision. A complete evaluation, including a pressure-flow study, should be performed in patient with a urethral caruncle, so that one can eliminate possible pathologies.

Competing interests: Dr. Çoban and Dr. Biyık declare no competing financial or personal interests.

This paper has been peer-reviewed.

References

- Hertig AT, Gore H, Sect X, FASC. 33. Tumors of the vulva, vagina and uterus, In: . Washington, DC; 1960:49.
- Everett HS, Williams TJ. Urology in the female. In *Campbell and Harrison Urology*, 3rd edition, vol 3. Philadelphia, PA: Saunders Co; 1970:1957-70.
- Tanagho EA, Brant WO, Lue TF. Disorders of the female urethra. In: Tanagho EA, McAninch JW (eds.), *Smith's General Urology*. 17th ed. San Francisco, McGraw-Hill; 2008:638-44.
- Urakami S, Igawa M, Shiina H, et al. Urethral caruncle with coexistence of intestinal heterotopia: A case report. *Int Urol Nephrol* 1997;29:341-4. <http://dx.doi.org/10.1007/BF02550933>
- Becker LE. Urethral caruncle: A herald lesion for distal urethral stenosis? *J Natl Med Assoc* 1975;67:228-30.
- Young RH, Oliva E, Garcia JA. Urethral caruncle with atypical stromal cells lymphoma or sarcoma - a distinctive pseudoneoplastic lesion of females. A report of six cases. *Am J Surg Pathol* 1996;20:1190-5. <http://dx.doi.org/10.1097/0000478-199610000-00003>
- Fernandez AM, De Castro BF, Cortes AI. Female urethral caruncle. A thrombosis of the dorsal venous complex? *Actas Urol Esp* 1998;22:443-5.
- Lee WH, Tan KH, Lee YW. The aetiology of postmenopausal bleeding-a study of 163 consecutive cases in Singapore. *Singapore Med J* 1995;36:164-8.
- Lopez JJ, Angulo JC, Ibanez T. Primary malignant melanoma mimicking urethral caruncle. Case report. *Scand J Urol Nephrol* 1993;27:125-6. <http://dx.doi.org/10.3109/00365599309180428>

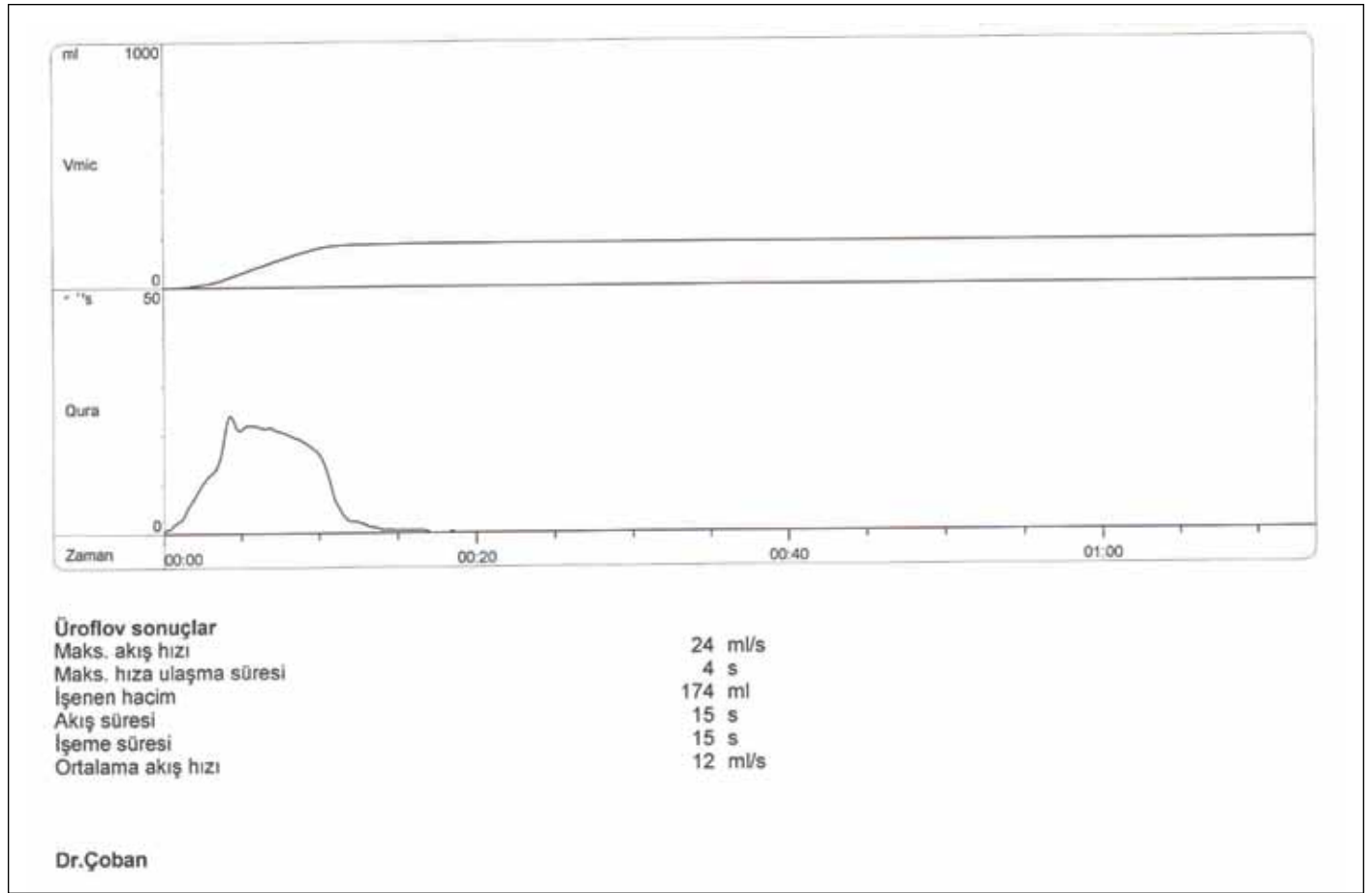


Fig. 2. Postoperative pressure flow study.

10. Kaneko G, Nishimoto K, Ogata K, et al. A case of intraepithelial squamous cell carcinoma arising from urethral caruncle. *Can Urol Assoc J* 2011;5:E14-6. <http://dx.doi.org/10.5489/cuaj.10027>

Correspondence: Dr. İsmail Bıyık, Specialist in Obstetrics and Gynecology, Karacabey State Hospital, Tavsanlı Street 56 Road No:4 16700 Karacabey/Bursa, Turkey; dribiyik@hotmail.com