

Urethral pathology

Case 1

A 43-year-old lady presents with urinary incontinence and vaginal pain associated with intercourse. An initial CT scan is performed.

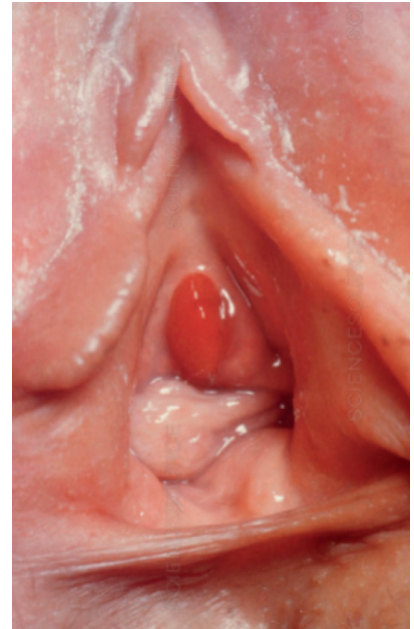


Case courtesy of Radswiki, Radiopaedia.org, rID: 12056.

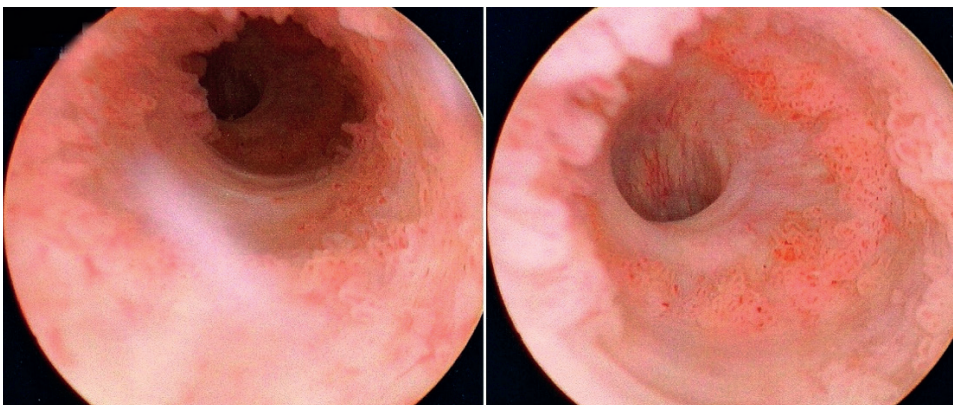
1. What is the clinical diagnosis from the imaging?
2. How common are these in women?
3. How do they usually present?
4. How are these diagnosed?
5. How are they classified?

Case 2

On performing a pelvic examination in a female you see the following.



1. What is the diagnosis?
2. Define this condition.
3. What is the underlying pathophysiology?
4. What is the differential diagnosis?
5. What are the treatment options?



Case 3

While performing a cystoscopy for haematuria, the following are encountered in the male urethra:

1. What is the likely diagnosis?
2. What are the risk factors for this?
3. How common is this?
4. What is the T-stage classification?
5. What factors affect overall disease survival?

Urethral pathology: answers

Case 1

1. Female urethral diverticulum.
2. 0.02–6%.
3. A high index of clinical suspicion aids the diagnosis. Classically they present with dysuria, dribble and dyspareunia (3Ds) – 20% of female cases. Urinary incontinence, recurrent urinary tract infections (UTIs), frequency, urgency, urethral / vaginal lump may be other symptoms.
4. MRI is the imaging of choice, but they can be diagnosed on micturating cystourethrogram, video urodynamics, cystourethroscopy, ultrasound, CT imaging and clinically detected.
5. Multiple classifications have been reported [1-3] but an anatomical classification via MRI is often helpful. This incorporates: simple, horseshoe or circumferential diverticula.

Case 2

1. Urethral caruncle.
2. A small single quadrant urethral prolapse, typically affecting the posterior urethral meatus.
3. Reduced oestrogen levels, causing the urethral smooth muscle to lack support for the urethral mucosa. Another theory is secondary to an inflammatory process following recurrent or chronic inflammation
4. Urethral prolapse / polyp, para-urethral cyst, urethral diverticulum, condyloma, urethral carcinoma.
5. Conservative therapy: sitz-bath, topical

oestrogens, anti-inflammatories or steroids. Surgery: excision if conservative methods failed, symptomatic or diagnostic uncertainty

Case 3

1. Urothelial carcinoma (UC) of the urethra.
2. Bladder UC, chronic inflammation after clean intermittent self catheterisation (CISC) / urethroplasty, radiotherapy, radioactive seeds, chronic urethral inflammation post sexually transmitted infection (i.e. HPV 16 related). In female specifically urethral diverticulum and recurrent UTIs.
3. Estimated to be 1.6 per million (males) and 0.6 per million females.
4. Tx Primary tumour cannot be assessed. Tis Carcinoma in situ. To No evidence of primary tumour. Ta Non-invasive papillary carcinoma. T1 Tumour invades subepithelial connective tissue. T2 Tumour invades any of the following structures: corpus spongiosum, prostate, peri-urethral muscle. T3 Tumour invades any of the following structures: corpus cavernosum, invasion beyond prostatic capsule, anterior vaginal wall, bladder neck. T4 Tumour invades other adjacent organs.
5. Age, tumour stage and grade, nodal stage, presence of distant metastasis, histological type, tumour size, tumour location, and type and modality of treatment.

References

1. Greenwell TJ, Spilotros M. Urethral diverticula in women. *Nature Reviews Urology* 2015; **12**:671-80.
2. Clark J, Olson L, Kujawa M. A review of the diagnosis and management of urethral caruncles. *Urology News* 2017;**22**(1):28-29.
3. Gakis G, Witjes JA, Compérat E, et al. EAU Guidelines on Primary Urothelial Carcinoma. *Eur Urol* 2013;**64**(5):823-30.

SECTION EDITOR



Nick Rukin,

Consultant Urological Surgeon, Metro North Hospitals and Health Service, Brisbane, Australia.

E: nicholas.rukin@health.qld.gov.au

Twitter: @nickrukin