

## Urethral diverticulum

Underdiagnosed

Incidence estimated up to 5% female population

Age 20-60 yrs

Originally thought to be either congenital or acquired – now accepted to be acquired secondary to infection of periurethral glands located in periurethral fascia on vaginal aspect of distal two-thirds of urethra. Largest and most distal of these cysts known as Skene's glands.

Infection and obstruction leads to retention cysts, which rupture into urethra, leading to diverticulum

Presentation

Classic 3D triad (Dribbling, dyspareunia, dysuria)

Haematuria

Urgency

Recurrent UTI

Urinary incontinence

Examination

None

Suburethral mass

Palpable stone

Expression of purulent material

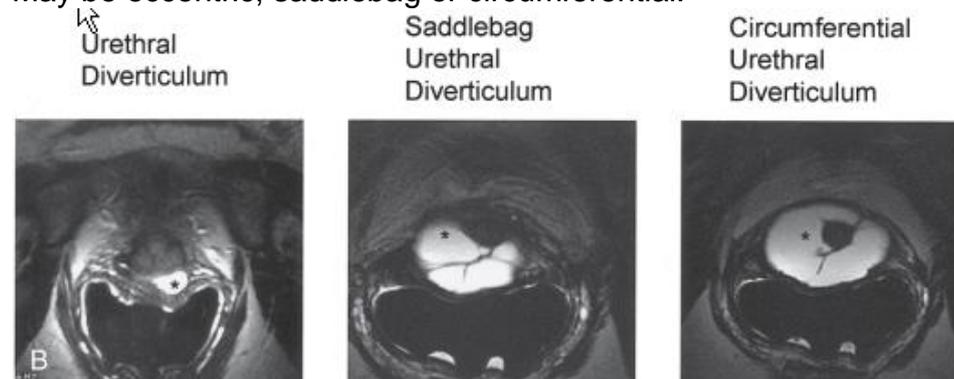
Pathology

Common organisms *E. Coli*, *Gonococcus*, *Chlamydia*

Lining variable – may be cuboidal, columnar, squamous or transitional

Very rarely present with urethral carcinoma in diverticulum (usually adenocarcinoma)

May be eccentric, saddlebag or circumferential:



Diagnosis

High index of suspicion

Clinical examination

Flexible cystoscopy (ostium most common in posterolateral mid-urethra)

Positive pressure retrograde urethrography (largely historical)

Voiding cystourethrogram

MRI (T2-weighted detects urine in diverticulum) – perform immediately post-void

Management

Distal diverticula

Spence procedure (marsupialisation)

Distal urethrotomy

Non-distal diverticula

Complete urethral diverticulectomy

Urethral closure with absorbable sutures

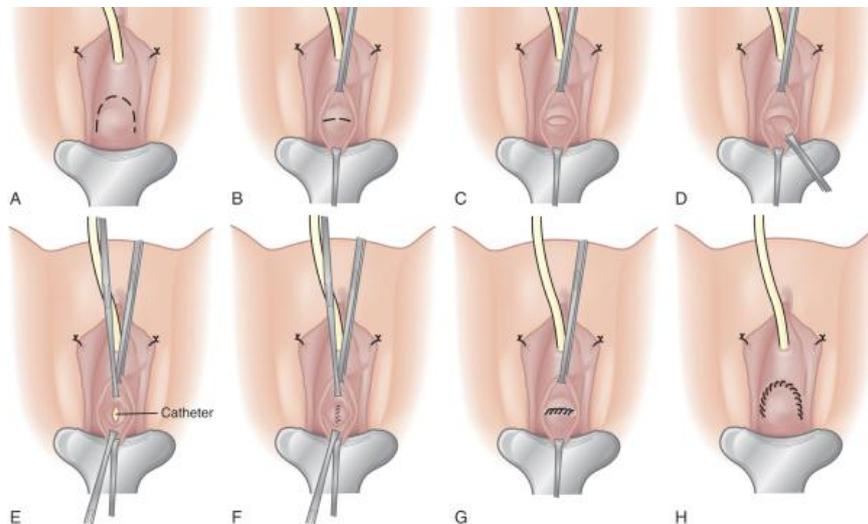
Apposition of periurethral layers to avoid overlapping suture lines

Coverage with Martius fat pad (superior and inferior pedicles)

Catheter drainage

Complications

Recurrent UTI	15%
Recurrence	10%
Stress incontinence	10%
Urethro-vaginal fistula	5%
Urethral stricture	2.5%



**Figure 73-30** **A**, An inverted U incision is marked on the anterior vaginal wall. Retraction is aided by the use of Allis clamps and a ring retractor with hooks. **B**, After reflection of the anterior vaginal wall, a transverse incision is made in the periurethral fascia. The dotted line represents the intended incision line. **C**, The periurethral fascia is incised and dissected from the underlying urethral diverticulum. **D**, The diverticular sac is freed from the periurethral fascia. **E**, The urethral catheter is seen after complete excision of the diverticular sac. **F**, The urethra is closed with absorbable suture. **G**, The periurethral fascia is closed with care to obliterate any dead space. **H**, The anterior vaginal wall flap is advanced over the periurethral suture line and secured with running interlocking absorbable suture.

**Differential diagnosis interlabial masses**

Women

Urethral diverticulum

Vaginal wall leiomyoma

Skene's gland cyst

Gartner's cysts (mesonephric duct remnants in vagina)

Urethral caruncle (inflammatory)

Urethral mucosal prolapse

Girls

Skene's gland cysts

Urethral mucosal prolapse

Prolapsed ectopic urethrocoele (1 mo.- 3yrs)  
Vaginal rhabdomyosarcoma (sarcoma botryoides)  
Imperforate hymen (newborn)