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:

![Imagery](Image)

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%

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)