Bartholin's Cyst and Abscess

Bartholin's glands are a pair of glands, each about the size of a pea, whose secretions maintain the moisture of the vestibular surface of the vagina. They are situated at about the 4 o'clock and 8 o'clock position of the vestibule and normally cannot be palpated. Damage or infection of the ostium of the duct causes blockage and a cyst occurs that may become infected.

Bartholin's glands are named after the Danish anatomist Casper Bartholin, who described them in the 17th century.

Epidemiology

Cysts or abscesses are usually unilateral. Bartholin's cysts occur in about 3% of women.[1] They most commonly present in women of childbearing age. If they present after the age of 40 a malignant cause must be considered, although this is rare.

Risk factors

- They usually occur in women who are nulliparous or of low parity.
- For some women the risk factors for Bartholin's abscess are as for the risks of sexually transmitted infections if the infection is caused by, for example, gonorrhoea.

History

- Small cysts may be asymptomatic and discovered incidentally - for example, when performing a routine cervical smear.
- Onset of an abscess is rapid over a matter of days or even hours.
- There is initially labial oedema before a swelling forms.
- The swelling may be very painful. The woman may find it uncomfortable to walk or sit. There may be superficial dyspareunia.
- If the cyst or abscess bursts spontaneously there is sudden relief of pain.
- Vaginal discharge may be present, especially in women with sexually transmitted infections.

Examination

- The patient's gait may be wide-legged if the cyst is large; it may be uncomfortable for her to sit.
- There is usually a unilateral labial mass; it may be soft and fluctuant and non-tender (cyst) or tense and hard with surrounding erythema (abscess). Size varies from pea-sized to several cm.
- Inguinal nodes may be palpable if it is infected and there may be fever.
- If the cyst or abscess bursts, there may be little to find.

Investigations[2]

A swab should be taken from the contents of the cyst; often the organisms that are cultured, even from the contents of an abscess, are skin commensals rather than pathogens.

Women over the age of 40 presenting with a Bartholin's cyst or abscess should have a biopsy to rule out carcinoma. This is uncommon but a number of types of malignancy of the vulva can occasionally present in this way.[3] Carcinoma of the Bartholin's gland accounts for around 5% of vulval carcinoma.[4]
Infecting organisms[^5]

It is common for Bartholin's abscesses to involve more than one type of organism. Aerobic organisms are the usual pathogens, with *Escherichia coli* being the most common. Organisms that cause sexually transmitted infections such as chlamydia and gonorrhoea may also be cultured.

Differential diagnosis[^2]

- Sebaceous cyst - possibly infected.
- Over the age of 40, carcinoma of vulva should be considered.
- Lipomata can occur on the labia majora.
- Sexually transmitted infections such as syphilis, gonorrhoea or genital warts. These may also co-exist with the Bartholin's cyst or abscess.
- Folliculitis
- Hernia
- Haematoma
- Hidradenitis suppurativa

Management[^2]

Conservative treatment

If the cyst is small and not causing a problem no action should be taken. The exception is in patients over 40 years of age in whom histology must be obtained to exclude malignancy. If there are no features of infection, antibiotics are not required and culture is usually sterile. Simple incision of the cyst often results in recurrence and is not recommended.

For an abscess, incision and drainage may be required. However, this is not ideal, as recurrence is common and it may make subsequent definitive treatment more difficult.

Warm baths may encourage spontaneous rupture and symptomatic relief.

Antibiotics may be effective to treat smaller abscesses whilst awaiting definitive treatment. Ideally culture is obtained and the appropriate antibiotic used. However, where this is not possible, or while awaiting results, a broad-spectrum antibiotic such as co-amoxiclav would be appropriate[^5]. It is not known, however, which is the optimum initial treatment. Flucloxacillin is often prescribed. Local guidelines should be followed where available.

Marsupialisation

This has been the definitive procedure of choice for many years and many gynaecologists still regard it as the best technique.

- It can be performed under local anaesthesia although general anaesthetic is often used.
- A vertical elliptical incision is made just inside or just outside the hymenal ring.
- An oval wedge of skin from the vulva and cyst wall is removed.
- Loculations are broken down with the gloved finger and the cyst wall is sewn to the adjacent skin using interrupted sutures.
- A large cyst may be packed with ribbon gauze in flavine. The cyst is laid open and will shrink and epithelialise over the following 7 to 14 days. This prevents recurrence.

Catheter insertion

A more recent technique that is gaining popularity is a balloon catheter.[^6]

- After the usual preparation and infiltration with local anaesthetic, a stab is made into the cyst, 1-1.5 cm deep.
- An instrument is used to break up loculations and, after the cyst has been drained, the Word catheter is passed into it; this is a small rubber catheter with an inflatable tip.
- The balloon is inflated with water or lubricating gel, as it holds its pressure better than air, and the other end is passed into the vagina.
The catheter is left in situ for up to four weeks for complete epithelialisation of the new tract. The catheter is removed by deflating the balloon and, over time, the resulting orifice will decrease in size and become unnoticeable.

Other techniques include incision and curettage of the cavity, application of silver nitrate to the abscess cavity, insertion of a plastic (Jacobi) ring or use of a carbon dioxide laser. All these techniques are less popular.

Complete excision of the gland should be avoided unless malignancy is suspected. This can cause considerable blood loss and should be performed in an operating theatre. Bartholin's gland cancer is exceedingly rare in all women, including postmenopausal women.

**Prognosis**

There is a high rate of recurrence which varies from 0-38%, depending on the type of surgery used. Recurrence is highest after incision and drainage and is low after marsupialisation.[7]

Complications after marsupialisation include haematoma, dyspareunia and infection.[8] Complications after balloon catheter insertion include infection, abscess recurrence, bleeding, pain from having the catheter in situ, scarring, expulsion of the bulb of the catheter and dyspareunia.[6]

**Further reading & references**

6. Balloon catheter insertion for Bartholin's cyst or abscess; NICE Interventional Procedure Guidance, December 2009

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