Pelvic Abscesses

A pelvic abscess most commonly follows acute appendicitis, or gynaecological infections or procedures. It can also occur as a complication of Crohn's disease, diverticulitis or following abdominal surgery. An abscess contains infected pus or fluid, and is walled off by inflammatory tissue. A pelvic abscess may grow quite large before making a patient ill, or causing obvious signs, and so may be easily missed.

- In males the abscess is usually located between the bladder and the rectum.
- In females the abscess usually lies between the uterus and the posterior fornix of the vagina, and the rectum posteriorly.
- A tubo-ovarian abscess is one type of pelvic abscess which is found in women of reproductive age, and may be a complication of pelvic inflammatory disease. In this case it is an inflammatory mass which involves the ovary and Fallopian tube.[1, 2]

Epidemiology

- Uncommon.
- Predisposing factors include Crohn's disease, diabetes mellitus, immunodeficiency and pregnancy. In Crohn's disease, abscesses may occur either spontaneously or as a complication of surgery.[3]

Presentation

- Systemic features of toxicity: fever, malaise, anorexia, nausea, vomiting, pyrexia.
- Local effects: eg, pain, deep tenderness in one or both lower quadrants, diarrhoea, tenesmus, mucous discharge per rectum, urinary frequency, dysuria, vaginal bleeding or discharge.
- Rectal or vaginal examination: may reveal tenderness of the pelvic peritoneum and bulging of the anterior rectal wall.
- Partial obstruction of the small intestine: this may sometimes occur.

Differential diagnosis

- Pelvic inflammatory disease.
- Appendicitis.
- Diverticular disease.
- Generalised peritonitis - eg, from a perforated peptic ulcer.
- Sepsis following termination of pregnancy or miscarriage.

Investigations

- FBC: raised white cell count often but not invariably.[1]
- Ultrasound.
- CT/MRI scanning may be more effective at identifying the origin of the abscess.[4]

Management

- Arrange urgent admission to hospital.
- Management is usually by drainage of the abscess along with antibiotic treatment. Antibiotics used alone are occasionally effective for very early, small abscesses.
- Antibiotic choice is guided by the likely cause and local resistance patterns and guidelines, but usually needs to be broad-spectrum until the pathogens are determined.
Procedures used for drainage of the abscess include:
- Ultrasound-guided aspiration and drainage: usually the abscess would be rectally drained in men, and in females it would be drained vaginally.\[^{5, 6}\]
- CT-guided aspiration and drainage. Percutaneous drainage often uses a trans-gluteal approach.\[^{7}\]
- Endoscopic ultrasound-guided drainage (EUS-guided drainage). Evidence supporting this as an effective, minimally invasive option is growing.\[^{8, 9}\]
- Laparotomy or laparoscopy with drainage of abscess may be required in some cases.

An abscess which is enlarging suprapubically needs draining urgently.
- In females the abscess is more difficult to diagnose if coils of bowel lie between the abscess and the posterior fornix and it may have to be drained suprapubically.
- Abscess drainage with adjuvant thrombolytic treatment, such as tissue plasminogen activator (tPA), has been used to aid drainage.\[^{10, 11}\]
- Definitive surgery may be required after initial drainage for some causes of pelvic abscess, such as appendicectomy for abscesses due to appendicitis, or salpingo-oophorectomy for tubo-ovarian abscess.

**Prognosis**

The prognosis will depend on the aetiology of the abscess, underlying well-being of the patient and the speed of diagnosis and effective management. An abscess may sometimes drain spontaneously into the rectum.

**Further reading & references**

- **Incision and Drainage of Pelvic Abscess via the Vaginal Route; Atlas of Pelvic Surgery**

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