Dysmenorrhoea

Definition / Supporting Information

Dysmenorrhoea (painful menstruation sufficient to affect quality of life and / or activities) typically begins just after menses and lasts approximately 1–2 days.

Keywords / also known as: painful menstrual cycle, period pain

Essential History

Ask about:

- Complete menstrual history
  - To include menarche, cycle length, number of days bleeding, regularity
- Timing of cramps or pain, and whether these date from menarche
  - May suggest an obstruction to menstrual flow
- Episodes of missed school or other activities
- Ability to participate in social events
- Presence of:
  - Nausea
  - Vomiting
  - Diarrhoea
  - Dizziness
- Medications used
  - Including doses
- Factors that improve or worsen symptoms
- Family history of dysmenorrhoea or endometriosis

‘Red Flag’ Symptoms and Signs

Ask about:

- Sexual activity
  - May be necessary to ask in the absence of a parent
- History of surgery related to:
  - The genitourinary tract
  - The gastrointestinal tract

Look for:

- Evidence of physical or sexual abuse
  - See When to suspect child maltreatment [NICE clinical guideline 89]
- Hymenal abnormalities
- Masses palpable in the abdomen if dysmenorrhoea is unresponsive to non-steroidal anti-inflammatory analgesics
  - Suggestive of uterine enlargement
- 'Erythema ab ignae' on the abdomen
  - An indication of ongoing severe pain relieved by hot water bottles

Differential Diagnosis / Conditions

Primary dysmenorrhoea

- Most common cause of dysmenorrhoea in teenage girls and often associated with the onset of ovulatory cycles
- May be related to elevated prostaglandins in adolescence
- May be caused by menorrhagia and the painful passage of clots
- Diagnosis of exclusion having discounted secondary causes

Secondary dysmenorrhoea

- Endometriosis
  - Pain may be acyclic rather than cyclic
    - Typically worse in the few days leading up to menstruation
  - Over half of all adult women with endometriosis have symptoms dating back to adolescence
  - Menstrual bleeding may be irregular.
  - Gastrointestinal symptoms may be present.
  - May be associated with:
    - Dyspareunia
    - Tenesmus
    - Rectal pain
- Pelvic inflammatory disease (PID)
  - Abdominal examination revealing pelvic pain in the presence of pyrexia suggests PID
  - Follow-up is critical; once infected, young women are at risk for:
    - Further episodes of PID
    - Chronic pelvic pain
    - Ectopic pregnancy
    - Infertility

- Outflow tract obstruction
  - Teenagers with a history of genital tract surgery, including pregnancy terminations, may have outflow tract obstruction.
  - A variety of müllerian anomalies with incomplete obstruction of the outflow tract also produce dysmenorrhoea.
  - A pelvic mass may be palpable
- Endometrial polyps or fibroids
  - Rare in women < 20 years
  - More common in the Afro-Caribbean population
  - Should be anticipated if menstrual bleeding is:
    - Heavy
    - Prolonged
    - Associated with the passage of clots
  - These entities alone are an unlikely cause of dysmenorrhoea

Investigations

Vaginal examinations and bimanual examinations are very rarely indicated in a non-specialist or specialist setting. Rectal examination to assess the uterus should not be performed.

To be undertaken by non-specialist practitioners (eg, General Practitioner (GP) Team) or by specialist practitioners (eg, Emergency Department / Paediatric / Paediatric Endocrinology / Adolescent Gynaecology Team(s)):

- Evaluate for (if sexually active):
  - Sexually transmitted infections
    - For example, self-taken introital swabs (nucleic acid amplification (NAAT) testing for chlamydia and gonorrhoea (or charcoal medium for gonorrhoea))
  - Pregnancy
- Transabdominal ultrasonography
  - May be useful in defining uterine and vaginal abnormalities associated with obstruction
  - Not generally helpful in the detection of pelvic or abdominal adhesions or endometriosis, although may identify an ovarian cyst endometrioma

To be undertaken by specialist practitioners (eg, Paediatric / Paediatric Endocrinology / Adolescent Gynaecology Team(s)):

- MRI
  - Gold standard for assessment of likely müllerian anomalies
  - Gives detail on uterine and vaginal anatomy, as well as information on the number and site of kidneys and ureters

- Laparoscopy
  - Required for confirmation of endometriosis
  - Should be performed by a gynaecologist experienced in evaluating adolescents
    - Lesions of endometriosis in adolescents may differ from the typical lesions seen in adults.

Treatment Approach

To be undertaken by non-specialist practitioners (eg, General Practitioner (GP) Team) or by specialist practitioners (eg, Emergency Department / Paediatric / Paediatric Endocrinology / Adolescent Gynaecology Team(s)):

Primary dysmenorrhoea

- Non-steroidal anti-inflammatory drugs (NSAIDs)
  - Teenagers who have very mild discomfort benefit from almost any analgesic.
  - Some need medication only for part or all of the first day of menstruation; others require medication for ≥ 4 days.
  - Ibuprofen and naproxen sodium are highly effective.
    - Most effective if started at the first sign of menstrual bleeding
  - Mefenamic acid for children > 12 years: 500 mg three times daily for duration of menses
  - If the patient does not respond to a particular NSAID (eg, ibuprofen), another (eg, naproxen sodium) should be tried.
  - Between 70% and 80% of girls will respond to NSAID therapy.
- Combined oral contraceptive pill (COCP)
  - Note this is also an effective treatment for endometriosis
- Other hormonal contraceptives
  - Contraceptive patch (ethinylestradiol with norelgestromin)
  - Depot medroxyprogesterone acetate (DMPA)
    - Decreases the frequency and heaviness of menses
  - Intrauterine system (eg, Mirena) (levonorgestrel)
    - Well tolerated in adolescents
    - May be fitted under a local or a short-acting general anaesthetic
    - Note this is also an effective treatment for endometriosis
- Other treatments that have been tried:
  - Heat
  - Pelvic exercise
  - General exercise
  - Biofeedback
  - Relaxation therapy
  - Massage

  - Vitamin E (alpha tocopherol) at a suggested dose of 500 units daily for 5 days (unlicensed)
  - Various herbal remedies
  - Magnesium (magnesium glycerophosphate)
    - Shown to be beneficial in some studies at a suggested dose of 360 mg daily for 3 days starting on the day before menstruation (unlicensed)
  - Patient encouraged to:
    - Exercise
    - Eat a well-balanced diet
    - Decrease stress
    - Decrease caffeine consumption
    - Stop smoking if applicable

Pelvic inflammatory disease (PID)

- Should be treated according to standard antibiotic regimens (see section on sexually transmitted infections above)
- Contact tracing of partners should be offered at a young person's sexual health clinic.

When to Refer

Refer to specialist practitioners (eg, Emergency Department / Paediatric / Paediatric Endocrinology / Adolescent Gynaecology Team(s)) if:

- The patient does not respond to NSAIDs and COCP.
- The clinical presentation or course suggests that the patient has secondary rather than primary dysmenorrhoea.
- Pelvic examination is indicated (rare).

'Safety Netting' Advice

- Re-evaluate after 2–3 menstrual cycles to determine the effectiveness of the treatment.
- Ask the girl to keep a menstrual diary with a note of pain levels in order to assess effectiveness.

Patient / Carer Information

Please note: whilst these resources have been developed to a high standard they may not be specific to children.

- Painful periods (dysmenorrhoea) (Web page), the NHS website
- Period pain (dysmenorrhoea) (Web page), Patient
- IUS (intrauterine system) (Web page) the NHS website

Resources

National Clinical Guidance

Heavy menstrual bleeding (Web page), NICE clinical guideline CG44, National Institute for Health and Care Excellence.

When to suspect child maltreatment (Web page), NICE clinical guideline CG89.National Institute for Health and Care Excellence.

Suggested Resources

Please note: these resources include links to external websites. These resources may not have national accreditation and therefore PCO UK cannot guarantee the accuracy of the content.

Disorders of Mullerian Duct Fusion (Web page), BritSPAG patient information leaflet, The British Society for Paediatric and Adolescent Gynaecology.

Disorders of the Descent of the Mullerian Ducts (Web page), BritSPAG patient information leaflet, The British Society for Paediatric and Adolescent Gynaecology.

Adolescent Laparoscopy (Web page), BritSPAG patient information leaflet, The British Society for Paediatric and Adolescent Gynaecology.

Pelvic Pain (Web page), BritSPAG patient information leaflet, The British Society for Paediatric and Adolescent Gynaecology.

Menstrual Periods (including period and symptom tracker) (Web page), Center for Young Women's Health.

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