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Medicine

Menorrhagia

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Abstract **Review Article**

The paper reviews the guidelines for Menorrhagia with the aim to make primary care clinicians aware of signs and symptoms of Menorrhagia, and how to manage these in the community.

Keywords: Menorrhagia.

AIM OF STUDY

Menorrhagia is a commonly seen condition in general practice. About 1 in 20 women aged between 30–49 years consult their GP each year because of heavy periods or menstrual problems, and menstrual disorders make up about 12% of all referrals to gynaecology services. The prevalence of menorrhagia in the adolescent population has been reported as up to 37%. The aim of this study is to make clinicians aware of the assessment, diagnosis and the management of Menorrhagia without missing out the red-flags.

Definition:

Defining heavy bleeding can be difficult. A "normal" cycle has bleeding that lasts 7 days or less, with a cycle length of between 21 and 35 days.

NICE suggests that for clinical purposes, heavy menstrual bleeding should be defined as excessive menstrual blood loss which interferes with the woman's physical, emotional, social and material quality of life, and which can occur alone or in combination with other symptoms.

Objectively, menorrhagia has been defined as blood loss more than 80 mL in an otherwise normal menstrual cycle (average blood loss is 30 - 40 ml per cycle). However, in practice, actual blood loss is rarely measured. It is enough to make a diagnosis of menorrhagia on the basis of the woman's perception of a large amount of bleeding, and the impact on her life.

Red flags to rule out for Menorrhagia:

1. Heavy bleeding with haemodynamic instability (An emergency!)
2. Postmenopausal bleed (Rule out cancerous causes)
3. Heavy bleeding during pregnancy
4. Pelvic mass, ascites, weight loss: consider endometrial carcinoma.
5. Suspicious ultrasound findings.
6. Heavy bleeding from menarche: Consider bleeding disorder

Associated symptoms of Menorrhagia:

- Dysmenorrhea
- Iron deficiency anaemia: fatigue, pallor, dyspnea, headache, sore tongue
- Compressive symptoms if pelvic mass: dyspareunia, pelvic discomfort, constipation, or urinary symptoms

Aetiology

- 40-60% of those who complain of excessive bleeding have no pathology and this is called Dysfunctional Uterine Bleeding (DUB).
- 20% of cases are associated with anovulatory cycles and these are most common at the extremes of reproductive life.
- Local causes include:
  - Fibroids.
  - Endometrial polyps.
  - Endometriosis.
  - Adenomyosis.
  - Endometritis.
  - Pelvic inflammatory disease (PID).
  - Endometrial hyperplasia or endometrial carcinoma. Endometrial carcinoma presents in women aged over 50 years in

the majority of cases and classically with postmenopausal bleeding; however, some cases present with abnormalities of the menstrual cycle. 90% present with abnormal uterine bleeding in some form.

- Systemic disease can include hypothyroidism, liver or kidney disease, obesity and bleeding disorders - eg, von Willebrand's disease.
- An intrauterine contraceptive device (IUCD) or anticoagulant treatment can increase menstrual flow.

Diagnosis

1. History:

- Onset (peri-menarcheal, sudden, or gradual) and duration (acute or chronic)
- Related symptoms such as intermenstrual bleeding, dyspareunia, pelvic pain, post-coital bleed, pressure symptoms (fibroids, adenomyosis) or hirsutism and weight gain (PCOS).
- Menstrual history: age of menarche, gravidity and parity, any variation in pattern, number of pads/tampons per day.
- Could she be pregnant?
- Cervical screening history
- Effect of symptoms on everyday life, Is she having regular time off work?
- Sexual history, including future plans for family (as this may impact choice of treatment)
- Past medical history: Bleeding disorder, Thyroid disorder
- Family history: Endometrial cancer, Breast cancer, Bowel cancer
- Hormonal therapy – e.g. contraceptive pills, IUD

2. Investigations:

- FBC
- Iron studies
- Coags – INR / PT / APTT / fibrinogen / platelets
- B-hCG
- TFTs
- Autoantibodies – e.g. ANA for SLE
- Consider hormones – LH, FSH, estradiol, prolactin
- Consider pelvic / transvaginal USS if: uterus is palpable abdominally or suspecting a pelvic mass. (Perform in the first half of the cycle when endometrial thickness can be measured). Endometrial thickness of more than 12 mm in premenopausal women, or less than 5 mm in post menopausal women requires endometrial biopsy.
- Consider hysteroscopy +/- biopsy if: persistent intermenstrual bleeding or risk factors for endometrial pathology.

3. Examination

- Examination includes checking heart rate and blood pressure to ensure the patient is hemodynamically stable, especially if very heavy and acute bleeding. Note general appearance and BMI. Body fat is very important in relation to metabolism of steroid hormones. Note any signs suggestive of endocrine abnormality (hirsutism, acne) or bruising.
- Abdominal / pelvic examination (bimanual examination)
- Feel for masses – particularly pelvic masses
- Consider speculum examination +/- pap smear +/- swabs for STI if indicated
- Consider carefully, if appropriate in young girls with no sexual history, as it can be a traumatic experience.

Management

Acute:

- If hemodynamically unstable – refer to the emergency department.
- If hemodynamically stable but Hb less than 80 – refer for urgent gynaecology assessment (consider referral via emergency department)
- To stop acute bleeding, consider one of the following
  - Tranexamic acid 1g to 1.5g PO every 8 hours – until bleeding stops
  - Progesterones:
    - Norethisterone 5-10 mg PO every 4 hours until bleeding stops
    - Medroxyprogesterone 10mg PO every 4 hours until bleeding stops

Non-acute:

- Non-acute treatment of menorrhagia may be medical or surgical. Surgery is usually indicated in cases of proven pathology, for example, uterine fibroids. Non-hormonal and hormonal agents may be used when the cause is uncertain or the woman is keen to retain her fertility.
- For women with menorrhagia and no identified pathology; fibroids less than 3 cm in diameter, which are not causing distortion of the uterine cavity; or suspected or diagnosed adenomyosis:

Choose one of the following options:

- Intrauterine device (e.g. *Mirena*)- 1st line
  - Studies show women reported a greater improvement in quality of life with mirena compared to other treatments. However, it has a high rate of removal, about 30% by 2 years
  - Advice patient to wait for at least 6 cycles to see the benefits of the treatment

- The non-hormonal treatment options are tranexamic acid or a nonsteroidal anti-inflammatory drug.
- The preferred oral hormonal treatment option is combined hormonal contraception (COCP)
- Although not as effective, but cyclical oral progestogen 'norethisterone' 5 mg tds from day 5 to 26, or injected long-acting progestogens such as medroxyprogesterone acetate (Depo-Provera®) every 12 weeks, can also be used.

Consider specialist referral for:

1. Women with fibroids of 3 cm or more in diameter
   - Treatment will depend on the size, location, and number of fibroids as well as the severity of symptoms. Patients may need Uterine artery embolization, myomectomy, hysterectomy, or second-generation endometrial ablation.
   - Pharmacological treatment may be continued if beneficial, while awaiting specialist review.
2. Women not responding to pharmacological treatment, persistent intermenstrual bleeding, if they decline pharmacological treatment, or symptoms are severe.
3. Women with risk factors for endometrial cancer or hyperplasia.
4. Women aged over 45 years with heavy menstrual bleeding
5. Symptoms or signs suggestive of malignancy. Should prompt urgent referral.
6. The woman wishing for surgical treatment.
7. Iron-deficiency anaemia not responding to treatment.

REFERENCES

- NICE CKS: https://cks.nice.org.uk/topics/menorrhagia-heavy-menstrual-bleeding/
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- Patient.info: https://patient.info/doctor/menorrhagia