Clinical approach to a patient with abnormal uterine bleeding

Lindeque BG, MBChB, MMed(O&G), FCOG(SA), MD
Professor, Department Obstetrics and Gynaecology
University of Pretoria

Correspondence to: Prof Gerhard Lindeque, e-mail: glindeque@medic.up.ac.za

Abstract

Abnormal excessive uterine bleeding forms a large proportion of gynaecological complaints. Of postpubertal girls who experience excessive menstrual loss, about one quarter will never regain a normal cycle and flow. As she grows older many other factors may arise causing menstrual abnormalities.

SA Fam Pract 2007;49(8): 32-33

Introduction

Excessive menstrual bleeding (menorrhagia) and acyclical bleeding (metrorrhagia), or combinations thereof, are the most commonly encountered forms of excessive menstruation. To exactly quantify menstrual blood loss is a difficult undertaking and is not commonly used in clinical practice to verify the complaint of excessive blood loss. For this reason the patient's history is of extreme importance and details of the bleeding, type, appearance, duration, cyclicity and associated symptoms such as pain must be noted.

The current, popular term for excessive menstruation is Heavy Menstrual Bleeding (HMB) as it is used in the UK NICE Guidelines. This term still has to gain international acceptance.

Phases of menstrual life

To understand the pathophysiology and clinical approach to excessive menstruation, menstrual life can be divided into three phases:

1. Adolescence (puberty until about 20 years)
2. Reproductive years (20 - 45 years)
3. Perimenopause (45 years to established menopause)

Organic and dysfunctional bleeding

When excessive menstruation is caused by disorders of the genital tract or other detectable abnormalities in the body, the cause is described as organic. Contrary to this, when all findings are normal, the cause is described as dysfunctional.

The common organic causes are listed in Table I.

Whether dysfunctional bleeding is related to ovulation (15% of cases) or anovulation (85% of cases) is of limited practical importance. The only patients in whom this should be determined, are those with concurrent infertility.

Table I: Organic causes of abnormal excessive menstruation

Genital causes	
Uterus	Endometrial hyperplasia Endometrial cancer Endometrial polyps Adenomyosis Submucous and intramural myomas
Cervix	Cervical cancer Cervical polyps Cervicitis Pedunculated prolapsed myoma
Uterine tubes	Pelvic inflammation Ectopic pregnancy
Ovary	Oestrogen producing ovarian tumours Ovarian cysts
Other genital disorders	Endometriosis Vulval tumours or lacerations Vaginal tumours or lacerations Other pregnancy complications: post-abortion, molar pregnancy
Non-genital causes	
Contraception	Intrauterine contraceptive device Depot-injectable progestogens Breakthrough bleeding on oral contraceptives
Endocrine	Hypo- or hyperthyroidism Hyperprolactinaemia
Medication	Anticoagulants
Haematological disease	Bleeding or clotting disorders
Adjacent organs	Bleeding from rectum or bladder

Clinical approach

In all cases where the main complaint is that of excessive menstrual bleeding, an immediate differentiation must be made between acute severe blood loss and chronic excessive menstruation.

Women with acute severe blood loss must be resuscitated. A diagnosis should be made on the basis of history, clinical examination and special testing including a pregnancy test, a hematocrit, abdominal and pelvic ultrasound and, if needed, a biopsy of a present lesion .

Women with chronic excessive menstruation will mostly be seen during a regular consultation. The history is of critical importance as decisions will of-

ten have to be based on this alone. The characteristics of the bleeding must be noted in detail. The obstetric, medical and surgical history as well as use of medication, are of great importance. A thorough general and gynaecological examination should be performed. Special investigations should include a pregnancy test, hematocrit and abdominal and pelvic ultrasound. The objective of the assessment is to exclude organic pathology where possible. If such pathology is detected, then the patient will be regarded as having organic excessive bleeding and treatment must be for that specific pathology. If no pathology can be detected, the patient is regarded as suffering from dysfunctional excessive menstruation and a set of standard management rules can be implemented. In such patients additional blood tests can be ordered for thyroid function and prolactin levels.

Standard management rules for dysfunctional excessive menstruation

The first objective is to stop the bleeding and then to ensure maintenance of cycle control.

To stop acute bleeding in a chronic excessive bleeding situation, a high dose oestrogen and progestogen containing oral contraceptive can be used (one month's supply of active tablets; one to four tablets per day), or tranexamic acid, in oral and parenteral forms.

The best available evidence suggests that the following steps be taken to manage chronic dysfunctional excessive menstruation (NICE guidelines):

1. Insertion of the levonorgestrel-releasing intrauterine system (in patients other than adolescents) as the first option.
2. Alternatives are: the use of tranexamic acid, non-steroidal anti-inflammatory drugs or combined oral contraceptives; if unsuccessful the use of oral norethisterone or depot injectable progestogens can be considered.

Surgical management of dysfunctional bleeding can be considered in patients with completed families where medical management has failed to solve the problem. This includes the less invasive procedure of endometrial ablation or a hysterectomy, depending on patient preference.

Current considerations of management options for common organic disorders

The most common organic disorder is the uterine myoma. Non-hysterectomy treatment options include GnRH (gonadotrophin-releasing hormone) agonist management to shrink the myoma, a myomectomy through laparotomy or laparoscopy, or embolisation of the uterine arteries supplying the myoma. In the young patient wishing to retain fertility, GnRH agonist pre-treatment followed by myomectomy is often preferred. For patients with completed families, myomectomy can still be considered and hysterectomy now also becomes a treatment option.

Approach to the patient in the different phases of menstrual life

Adolescence

The basic problem in this age group is immaturity of the hypothalamic-pituitary-ovarian axis resulting in prolonged production of oestrogens, but irregular ovulation. Resulting anovulatory oestrogen withdrawal bleeding can occur and can be quite severe. In a minority of patients (less than 20%) there may be an underlying haematological disorder. The approach is to the history as described, followed by a clinical examination and special tests. It should be noted that a vaginal examination or transvaginal ultrasound examination should not be performed in a virgo intacta patient. Special tests will include a pregnancy test, full blood count and platelets, clotting profile, and, if abnormal, tests for bleeding disorders such as von Willebrand's disease. In all cases management will initially be medical with oral contraceptives and tranexamic acid high on the list. The patient should use oral contraception for periods of six months after which treatment can be interrupted to determine whether the cycle has improved. Medical or haematological abnormalities which may occur should be addressed specifically.

Reproductive years

Both organic and dysfunctional excessive bleeding occur during this phase. The assessment for organic lesions should be careful and thorough. Once dysfunctional excessive menstruation is diagnosed, the standard medical management rules will apply. In this menstrual life phase surgical treatment is also a consideration.

Perimenopause

During this phase the majority of patients will experience anovulatory excessive bleeding due to ovarian oocyte depletion. However, since the more serious forms of organic pathology occur more commonly in this age group than in younger patients, great care should be taken to exclude such disorders. This will include performing endometrial sampling and endo- and ectocervical cytology. Once organic disorders have been excluded, the medical management guidelines can be employed as set out in the NICE guidelines.

See CPD Questionnaire, page 42

This article has been peer reviewed

References:

1. Gibson M, editor. Management of abnormal uterine bleeding. In: Clin Obstet and Gynaec 2005;48(2).
2. Hurskainen R. Managing resistant essential menorrhagia without hysterectomy. Best Practice and Research. In: Obstet Gynaecol 2006;20(5):681-694
3. NICE Guidelines: Available from: http://www.nice.org.uk/CG44