Intermenstrual and post-coital bleeding

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Abstract

Intermenstrual and post-coital bleeding are very common presenting complaints among women of reproductive age. The majority of cases of unscheduled bleeding in premenopausal women result from benign conditions such as endometrial polyps, infection or from oral contraceptive use. Cervical and endometrial cancers however are associated with abnormal bleeding and therefore it is essential that women with these symptoms are evaluated carefully. The single most important stage in the assessment of women with unscheduled bleeding is a vaginal speculum examination; the presence of bleeding should not delay this essential investigation. Women with risk factors for endometrial malignancy or symptoms suggestive of gynaecological pathology may warrant ultrasound examination and/or endometrial biopsy. This review discusses three common causes of intermenstrual and postcoital bleeding and outlines some of the important considerations in the assessment and management of these patients.

Keywords cervical cancer; contraception; endometrial polyp; intermenstrual bleeding; postcoital

Introduction

Unscheduled vaginal bleeding is a common indication for women to seek medical advice in their reproductive years. It has been estimated that almost one quarter of premenopausal women experience intermenstrual bleeding with almost 8% experiencing post-coital bleeding at some time. In women under the age of 35 unscheduled bleeding is more commonly associated with contraceptive use, in older women benign gynaecological conditions such as polyps and fibroids are more commonly seen and malignancy is more prevalent. Although malignancy is rare in premenopausal women, menstrual irregularities can be one of the first symptoms of gynaecological cancer. The association between abnormal bleeding and cancer can be a source of significant anxiety for patients.

Intermenstrual bleeding (IMB) is defined as bleeding at any time during a woman's cycle other than during menstruation. Postcoital bleeding (PCB) is non-menstrual bleeding occurring during, immediately or shortly after intercourse. IMB and PCB often coexist and therefore the causes of both must be considered in women attending with unscheduled vaginal bleeding. In many women no cause for bleeding is identified and it may resolve without intervention. Unscheduled bleeding is often accompanied by other menstrual disorders including menorrhagia, dysmenorrhoea or dyspareunia (Tables 1 and 2).

Assessment of women with intermenstrual or post-coital bleeding

Unscheduled vaginal bleeding has a myriad of causes and the different pathologies can co-exist. A thorough gynaecological history and careful examination is an essential aid to diagnosis and will guide the need for further investigation. In younger women malignancy is uncommon and unscheduled bleeding is more commonly associated with hormonal contraceptive use and is generally termed "breakthrough bleeding". With increasing age fibroids and polyps are more commonly seen and abnormal bleeding in these women should arouse suspicion of malignancy.

Women with unscheduled bleeding who warrant referral to secondary care include

- Women over the age of 45 with IMB
- Women under the age of 45 with IMB and risk factors for endometrial cancer
- Women over the age of 35 with PCB for over 4 weeks
- Persistent IMB and negative examination findings
- Persistent PCB or IMB bleeding at any age
- Failure of previous treatment
- Abnormal appearance to cervix or vagina on speculum examination
- Cervical pathology not suspicious of cancer that may require treatment (polyp/ectropion)
- Pelvic mass

Causes of intermenstrual bleeding

Physiological	Ovulation
Vaginal	Adenosis
	Vaginal cancer
Cervical	Cervical polyp
	Cervical ectropion
	Cervical cancer
	Infection (chlamydia, gonorrhoea)
	Condylomata
Uterine	Endometrial polyp
	Fibroids
	Endometritis
	Adenomyosis
	Endometrial cancer
	Caesarean scar defect
	Malpositioned IUCD
Ovarian	Hormone secreting tumours
Hormonal	Hormonal contraceptive use
	Poor compliance with hormonal contraceptive
	Perimenopausal hormonal changes
Other	Drug use (Tamoxifen, anticoagulants)
	Drug interaction with hormonal contraceptives

Table 1

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Causes of post-coital bleeding

Vaginal	Vaginal cancer
	Vaginitis
Cervical	Cervical ectropion
	Cervical polyp
	Cervical cancer
	Infection
Uterine	Endometrial polyp
Other	Trauma

Table 2

History taking

In the first instance pregnancy must be excluded in any patient presenting with unscheduled bleeding. A comprehensive menstrual history should be taken and details of cycle length and regularity should be elicited. The pattern of abnormal bleeding in relation to the menstrual cycle should be outlined; for example, regular mid-cycle bleeding may suggest bleeding in association with ovulation which is experienced by 1–2% of women.

The presence of other gynaecological symptoms such as menorrhagia, dyspareunia, dysmenorrhoea, vaginal discharge and temperature should be sought and details of past deliveries and pregnancies should be obtained.

A contraceptive history should be taken including current and past contraceptive use, compliance with contraception and the concurrent use of medication that may have resulted in a drug interaction. A detailed sexual history is particularly important in women under the age of 25 or those who have a new sexual partner as these women are at higher risk of sexually transmitted infections (STI).

A past smear history is essential and should include information regarding the most recent smear test result as well as details of past smear abnormalities, previous colposcopy and treatments.

A family or personal history of gynaecological, breast or gastrointestinal malignancy should be elicited and smoking status should be ascertained.

Examination

Assessment of body mass index (BMI) is important due to the association between endometrial cancer and elevated BMI. Abdominal examination may reveal a pelvic mass in patients with large fibroids.

Bimanual and speculum examination are mandatory in women with unscheduled bleeding. Findings suggestive of cervical malignancy are contact bleeding, ulceration, friable tissue or a craggy irregular cervix. The presence of vaginal discharge and cervical excitation is suggestive of infection and the cervix may appear red, congested or oedematous on speculum examination. A cervical ectropion or endocervical polyp may be seen. The vulva and vaginal walls should be carefully examined. Consideration should be given to extra-genital areas as unscheduled bleeding can arise from the bladder or rectum.

Investigations

A cervical smear test should be performed if not up to date. If the cervix appears abnormal referral to colposcopy should not be delayed while waiting for a smear test result. Vaginal swabs should be taken in those at risk of infection. In patients with concurrent menorrhagia a full blood count should be performed to assess for anaemia.

Transvaginal ultrasound is useful to assess fibroids and endometrial abnormalities. Endometrial cavity abnormalities are best assessed on a post-menstrual ultrasound and saline sonography may aid diagnosis of endometrial polyps where there is uncertainty.

Endometrial cancer is rare in young women particularly when there are no additional risk factors however the incidence rises sharply after the age of 40 and therefore endometrial biopsy should be considered in these women. Endometrial biopsy is indicated in women over 45 with IMB, women with persistent IMB and in cases where treatment has failed to improve symptoms. Endometrial sampling can be performed as a blind procedure or under hysteroscopic guidance. Hysteroscopy is particularly useful when a focal endometrial lesion is suspected on ultrasound and directed biopsy is needed or to allow the removal of polyps or submucous fibroids.

Risk factors for endometrial cancer include:

- Elevated BMI
- Age over 45
- Polycystic ovarian syndrome
- Perimenopausal women with anovulatory cycles
- Oestrogen secreting ovarian tumours
- Tamoxifen use
- Systemic oestrogen use
- Diabetes
- Personal or family history of breast, endometrial or colorectal cancer (Lynch syndrome)
- Previous endometrial hyperplasia

Endometrial polyp

Case 1

A 38-year-old nulliparous woman is referred to the gynaecology clinic with a 12-month history of IMB. Her last smear test was 6 months ago and was normal. She has a regular sexual partner and uses condoms for contraception. An infection screen arranged by her GP was normal. She has no significant past medical or surgical history and does not take regular medication.

How would you assess this patient?

A full gynaecological history should be taken; in this case there was no relationship between her intermenstrual bleeding and the stage of her menstrual cycle. Her periods were regular but heavy and painful. Abdominal examination did not identify a pelvic mass. Bimanual and speculum examination did not reveal any abnormality.

In this case further investigation with ultrasound is indicated due to her persistent symptoms and absence of other identifiable cause. See Table 1 for differential diagnoses.

Ultrasound findings

An ultrasound scan was performed on day 3 of her menstrual cycle. The report describes the uterus as retroverted with an endometrial thickness of 9.7 mm. The midline endometrial echo was disrupted by an 8 × 6 × 6 mm homogenous structure consistent with an endometrial polyp. There was a single feeding vessel on colour Doppler examination. Both ovaries appeared normal.

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