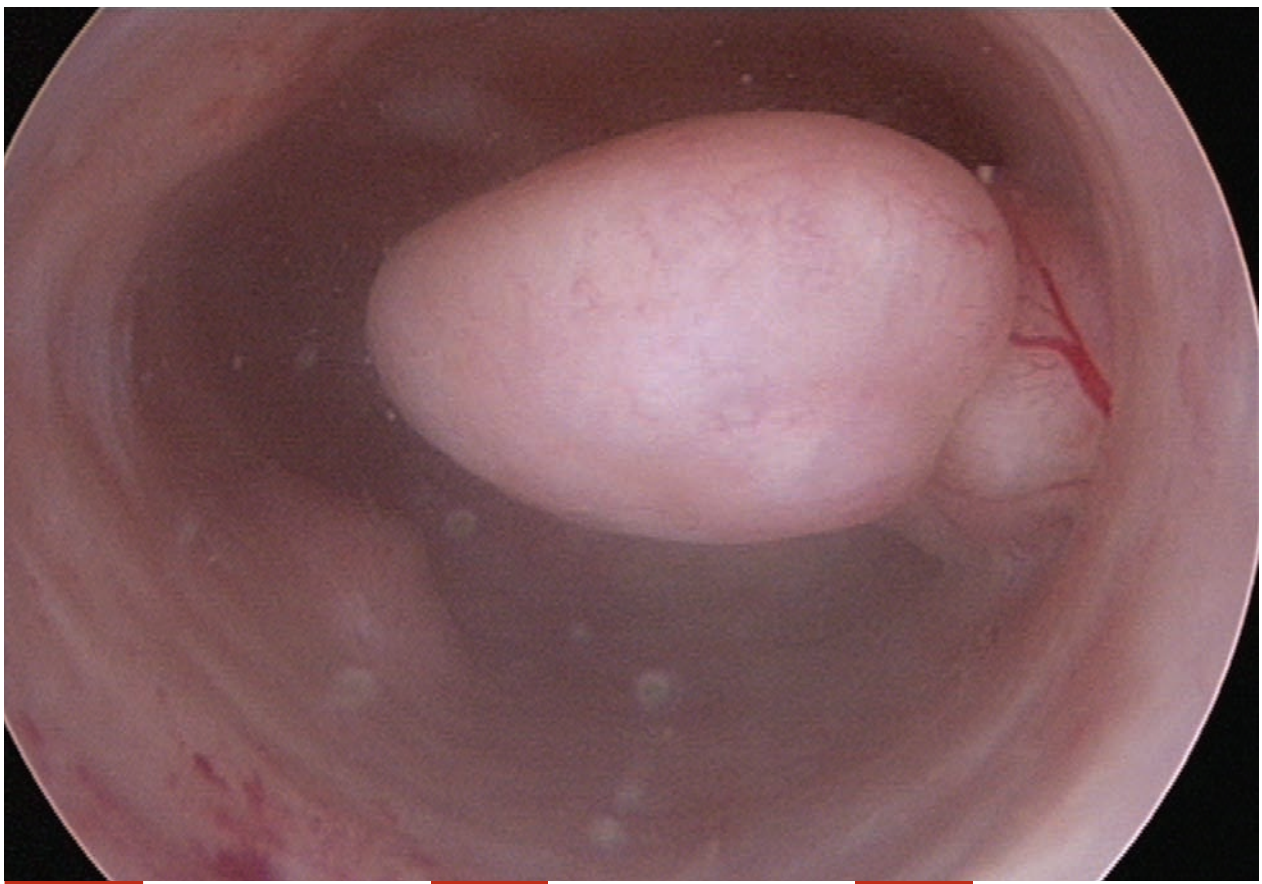
Postmenopausal bleeding should be referred urgently

AUTHORS
Dr Sarah Newell
MBBS
Specialty trainee in Obstetrics and Gynaecology

Mrs Caroline Overton
MBBS MD FRCOG FHEA
Consultant Obstetrician & Gynaecologist
Subspecialist in Reproductive Medicine & Laparoscopic Surgery

St Michael's University Hospital, Bristol



Hysteroscopic view of an endometrial polyp

What are the common causes?

POSTMENOPAUSAL BLEEDING IS AN EPISODE OF BLEEDING 12 MONTHS OR MORE AFTER THE LAST menstrual period.[1] It is one of the most common reasons for referral to the gynaecology department. All women with postmenopausal bleeding should be referred urgently, endometrial cancer is present in approximately 10% of cases.[1]

CAUSES

Postmenopausal bleeding is a common problem and occurs in up to 10% of women aged over 55 years. The majority of cases have a benign cause. There is no evidence to indicate whether different patterns of postmenopausal bleeding such as one-off bleeding or more frequent bleeds are more likely to be associated with malignancy.[1]

Possible causes of postmenopausal vaginal bleeding are listed in table 1, p14.

How should GPs assess patients?

PRIMARY CARE ASSESSMENT

The aim of assessment and investigation of postmenopausal bleeding is to identify a cause and exclude cancer. Assessment should start by taking a detailed history with identification of risk factors for endometrial cancer (see table 2, p14) as well as a medication history covering use of HRT, tamoxifen and anticoagulants.

How should patients be investigated?

Abdominal and pelvic examinations should be carried out to look for masses. Speculum examination should be performed to:

- see if a source of bleeding can be identified
- assess atrophic changes in the vagina
- look for evidence of cervical malignancy or polyps.

The woman is usually clear where the bleeding has come from i.e. from the vagina, urethra or rectum. When there is uncertainty about the origin of the bleeding a tampon can be inserted to confirm the bleeding is vaginal rather than rectal or urethral. »

Table 1

Causes of postmenopausal bleeding	
Endometrial carcinoma	
Cervical carcinoma	
Vaginal atrophy	Vaginal atrophy occurs as a result of decreased oestrogen which leads to thinning of the vaginal skin and dryness. Speculum examination shows a thin pale vaginal wall that may bleed on contact
Endometrial hyperplasia ± polyp	Endometrial hyperplasia covers a range of changes in the endometrium and can be simple or complex, with or without atypia. Complex hyperplasia with atypia is a premalignant condition and should be treated as endometrial cancer
Cervical polyps	Cervical polyps are common in perimenopausal women although their exact cause is unknown. They are benign growths that appear as pink protrusions from the cervical os
Hormone-producing ovarian tumours	Hormone-producing tumours of the ovary are very rare. Granulosa cell tumours are the most common oestrogen-secreting ovarian tumours. They usually present between the ages of 40 and 70 with a mean age at presentation of 50 years. Approximately half of patients are postmenopausal.[6] Oestrogen production results in endometrial hyperplasia and even carcinoma. An ultrasound scan may show a thickened endometrium but often these ovarian tumours are small and so are not visualised on scan. They should be treated as for ovarian cancer
Other causes	Haematuria Rectal bleeding

If a source of bleeding is identified on speculum, treatment for this should be initiated. The woman should have an ultrasound scan arranged to check the endometrial thickness. If the endometrial thickness is <5 mm on ultrasound scan and the postmenopausal bleeding has stopped, then no further action need be taken.

DIAGNOSIS

All women who have an episode of postmenopausal bleeding should be seen under the two-week referral rule. Endometrial cancer should be excluded.

Ultrasound scan and endometrial biopsy are complementary. Ultrasound scan can define endometrial thickness and identify structural abnormalities of the uterus, endometrium and ovaries. Endometrial biopsy provides a histological diagnosis.

Transvaginal ultrasound scan

Most evidence at present advocates the use of transvaginal ultrasound scan (TVUS) as the initial investigation of postmenopausal bleeding. TVUS can reliably assess the thickness of the endometrium and identify structural abnormalities such as polyps or submucous fibroids. It is also a valuable diagnostic tool in excluding ovarian malignancy.

The measurement of endometrial thickness aims to identify which women with postmenopausal bleeding are at significant risk of endometrial cancer. The thicker the endometrium, the higher the chance of endometrial cancer being present. The chance of finding endometrial cancer in a woman with an endometrial thickness of ≤ 4 mm is 0.8%.[4]

The thinner the endometrial thickness chosen as a cut-off, the fewer cases of endometrial cancer will be missed. A higher cut-off will result in more cases of endometrial cancer being missed but will mean fewer unnecessary investigations.

The SIGN guidelines[1] advise that an endometrial thickness of <3 mm can be used to exclude endometrial cancer in women who:

- have never received HRT
- have not used HRT for a year or more
- are on continuous combined HRT

A recent meta-analysis suggested that a cut-off of 5 mm was a reasonable compromise.[9] It is important to remember that no endometrial thickness completely excludes cancer and the disease can present in women without postmenopausal bleeding.

If the examination is normal, the bleeding has stopped and the endometrial thickness is <5 mm on TVUS, no further action need be taken. If bleeding recurs, referral for hysteroscopy would be indicated.[5]

Endometrial biopsy

Endometrial sampling is an effective screening test for endometrial cancer but misses benign structural abnormalities such as endometrial polyps. Blind endometrial biopsy techniques can be used to obtain samples. Endometrial

Table 2

Risk factors for endometrial cancer

Age
- peak incidence for endometrial carcinoma is between 65 and 75 years
- 93% of cases of endometrial cancer are diagnosed in women aged 50 years and over[2]

Past medical history of endometrial hyperplasia or polyps

Endogenous oestrogen excess
- obesity
- early menarche (<12 years)
- late menopause (>50 years)
- nulliparity — pregnancy reduces the risk of endometrial cancer by 30% after the first birth and by 25% with each subsequent birth[7]
- PCOS

Drug history of exogenous oestrogen excess
- unopposed oestrogen replacement therapy
- tamoxifen (risk increases with increasing dose/duration of therapy)

Personal history of diabetes

Past medical history of breast or ovarian carcinoma

Family history of hereditary nonpolyposis colon cancer (HNPCC)
patients have an 80% lifetime risk of developing endometrial carcinoma

key points

SELECTED BY

Dr Peter Saul

GP, Wrexham and Associate GP Dean for North Wales

Postmenopausal bleeding is an episode of bleeding 12 months or more after the last menstrual period. It occurs in up to 10% of women aged over 55 years. All women with postmenopausal bleeding should be referred urgently. Endometrial cancer is present in around 10% of patients; most bleeding has a benign cause. Causes of postmenopausal bleeding include: endometrial carcinoma; cervical carcinoma; vaginal atrophy; endometrial hyperplasia ± polyp; cervical polyps; hormone-producing ovarian tumours; haematuria and rectal bleeding.

The aim of assessment and investigation of postmenopausal bleeding is to identify a cause and exclude cancer. Assessment should start by taking a detailed history, with identification of risk factors for endometrial cancer, as well as a medication history covering use of HRT, tamoxifen and anticoagulants. Abdominal and pelvic examinations should be carried out to look for masses. Speculum examination should be performed to see if a source of bleeding can be identified, assess atrophic changes in the vagina and look for evidence of cervical malignancy or polyps.

The peak incidence for endometrial carcinoma is between 65 and 75 years of age. Risk factors include a past medical history of endometrial hyperplasia or polyps, obesity, early menarche, late menopause, PCOS, a drug history of exogenous oestrogen excess, diabetes, or a past medical history of breast or ovarian carcinoma. Patients with hereditary nonpolyposis colon cancer (HNPCC) have an 80% lifetime risk of developing endometrial carcinoma.

Ultrasound scan and endometrial biopsy are complementary. Ultrasound scan can define endometrial thickness and identify structural abnormalities of the uterus, endometrium and ovaries. Endometrial biopsy provides a histological diagnosis. The measurement of endometrial thickness aims to identify which women with postmenopausal bleeding are at significant risk of endometrial cancer. If the examination is normal, the bleeding has stopped and the endometrial thickness is < 5 mm on transvaginal ultrasound scan, no further action need be taken. If bleeding recurs, referral for hysteroscopy would be indicated. Endometrial sampling is an effective screening test for endometrial cancer but misses benign structural abnormalities such as endometrial polyps. Hysteroscopy and curettage is the gold standard investigation, it allows direct visualisation and assessment of the uterine cavity.

Vaginal atrophy can be treated using topical oestrogens. Cervical polyps can usually be removed easily in outpatients. Endometrial polyps should be removed hysteroscopically. Endometrial hyperplasia without atypia has a good response rate when treated with progestagens. Stage 1 endometrial cancer is treated with hysterectomy and bilateral salpingoophorectomy. Stage 2 or high-risk stage 1 cancer requires lymph node dissection. Adjuvant therapy (usually radiotherapy) with or without chemotherapy may be offered depending on the final histological diagnosis and staging.

samplers use negative pressure to allow aspiration of tissue. All blind sampling of the endometrium will miss some cancers. Outpatient endometrial sampling will fail to obtain a sample in approximately 7% of cases.[8]

Further investigations

Hysteroscopy and curettage is the gold standard investigation as it allows direct visualisation and assessment of the uterine cavity and any structural abnormalities, and directed biopsy of specific lesions. Hysteroscopy is indicated in cases in which endometrial sampling cannot be performed because of cervical stenosis or discomfort; or where bleeding persists after negative biopsy.

If the endometrium is >5 mm in thickness or the scan has identified a structural abnormality such as a polyp or submucous fibroid then further investigation is justified.

One stop clinics

Recent innovations include the development of specialist one stop clinics which enable clinical examination, ultrasound scan, endometrial sampling and outpatient hysteroscopy to be performed at the same visit. Following this assessment, reassurance can be offered or further investigations and treatment can be arranged.

MANAGEMENT

Benign conditions

Vaginal atrophy can be treated using topical oestrogens and there is minimal systemic absorption. Our preferred approach is to use vaginal oestrogen daily for two weeks and then once or twice weekly for maintenance. This can be continued long term without the need for any monitoring. If other menopausal symptoms are present then HRT may be used.

Cervical polyps can usually be removed easily as an outpatient procedure. Sponge forceps are used to twist the pedicle gradually until the polyp comes away. Endometrial polyps should be removed hysteroscopically.

Endometrial hyperplasia without atypia has a good response rate when treated with progestagens. Complex endometrial hyperplasia with atypia progresses to endometrial carcinoma in 23% of cases[5] and should therefore be treated as endometrial cancer.

Endometrial cancer

The treatment for endometrial cancer is hysterectomy. Endometrial cancer is staged using the FIGO staging system, and treatment is determined by the stage of the cancer.

Stage 1 (cancer confined to the uterus) is treated with hysterectomy and bilateral salpingoophorectomy. Stage 2 or high-risk stage 1 cancer requires lymph node dissection. Adjuvant therapy (usually radiotherapy) with or without chemotherapy may be offered depending on the final histological diagnosis and staging.

CONCLUSION

Postmenopausal bleeding is a relatively common presentation that usually has a benign cause. Endometrial cancer is present in approximately 10% of cases. All women with postmenopausal bleeding should be referred to the gynaecology department under the two week rule. First-line investigation is a TVUS, which provides valuable information to identify which women need to undergo more extensive investigations. A normal TVUS is reassuring, and if examination is normal further investigation is not required, providing the bleeding has stopped.

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Useful information

Patient information leaflets on endometrial cancer
www.patient.co.uk/showdoc/27000678

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editor@thepractitioner.co.uk