THE MANAGEMENT OF POST-MENOPAUSAL BLEEDING: A REVIEW

R Ghani, SpR in Obstetrics & Gynaecology,
Furness General Hospital

INTRODUCTION

Post-menopausal bleeding (PMB) accounts for a significant proportion of gynaecological referrals. The primary aim of management is to exclude endometrial carcinoma. Benign causes are excluded from this review. There are many methods available to examine the endometrium.

EPIDEMIOLOGY

The incidence of PMB in the UK is unknown. PMB is common in the western world, especially in the Caucasian population⁽¹⁾. The incidence also increases in immigrants into western countries. This may suggest that environmental factors may be significant in the aetiology.

Other risk factors important in the aetiology of endometrial carcinoma are⁽²⁾:

- increasing age (it should be noted that 5% occur in women under 40 years of age)⁽³⁾
- early menarche
- nulliparity⁽⁴⁾
- late menopause⁽⁴⁾
- exogenous unopposed oestrogens⁽⁵⁾
- polycystic ovarian syndrome
- hypertension
- diabetes mellitus
- obesity⁽⁴⁾
- liver disease
- endometrial atypia
- tamoxifen therapy^(6,7)

The risk of endometrial carcinoma associated with PMB is approximately 11%⁽⁸⁾. This increases the greater the number of risk factors present. PMB is also associated with nonendometrial carcinomas including those involving the cervix, ovary, fallopian tubes, vulva and vagina⁽⁸⁾.

HISTORY AND EXAMINATION

A thorough history and clinical examination is crucial in the initial assessment of any patient with PMB. The nature and origin of the bleeding needs to be established. Bleeding per urethram and per rectum are often described by patients as per vaginum. Recognition of bleeding from these sites will lead to the appropriate investigations such as cystoscopy and sigmoido-proctoscopy respectively.

The history can determine the risk factors associated with an increased risk of endometrial carcinoma⁽²⁾.

The patient's general health should be noted. In addition to an abdominal examination, local examination of the introitus and a speculum examination may show a local lesion. If bleeding per rectum is suspected then a PR examination is essential.

INVESTIGATIONS

A full blood count should be performed to exclude anaemia. Liver function tests and a clotting profile should only be performed if liver disease is suspected. Thyroid function tests are of no value. An MSSU should be sent if there is haematuria, to exclude infection, and is essential prior to cystoscopy. An ultrasound scan (USS) of the pelvis should be performed to exclude an ovarian tumour. Tumour markers are not helpful as a diagnostic tool⁽⁹⁾.

CERVICAL CYTOLOGY

PMB may be due to carcinoma of the cervix, which can be missed by cervical cytology. An obvious lesion is an indication for colposcopy and directed biopsy.

Glandular cells reported on cervical cytology should raise suspicion of either a cervical glandular lesion or an endometrial lesion. Endometrial carcinoma can be detected by cervical cytology in up to 30% of cases⁽¹⁰⁾. Therefore PMB is an indication for cervical cytology regardless of when the last smear was performed.

ENDOMETRIAL SAMPLING

The aim is to exclude endometrial carcinoma. There are various methods of obtaining tissue for histological examination which can be done as inpatient or outpatient procedures.

Inpatient sampling { D & C
hysteroscopy & endometrial biopsy

Outpatient sampling { pipelle aspiration
outpatient hysteroscopy
+/- transvaginal USS

D & C

The blind technique of D & C to sample the endometrium actually samples less than half of the endometrium from the uterine cavity⁽¹¹⁾ and areas of carcinoma can easily be missed. It is an expensive investigation requiring anaesthesia and has associated complications such as perforation, haemorrhage and infection.

There is no role for blind D & C in obtaining endometrium in PMB.

Hysteroscopy and endometrial biopsy

Hysteroscopy allows a visual inspection of the entire uterine cavity. It needs to be combined with an endometrial biopsy as alone it is unreliable in differentiating between atypical endometrium and carcinoma⁽¹²⁾. This is the gold standard at present.

Operative complications include uterine perforation, infection, air embolism and anaphylaxis from the distension fluid.

Pipelle

There are many devices available. The most commonly used is the Pipelle, which can be used in the out-patient clinic. The procedure is blind and samples less than 50% of the endometrium⁽¹³⁾.

Insertion through the internal cervical so can cause discomfort and occasionally a vaso-vagal attack. Uterine perforation is rare. A false sense of security may be obtained if no tissue is sampled, yet a carcinoma be present. Pipelle may be combined with transvaginal USS to increase its sensitivity in detecting endometrial carcinoma, but it falls short of the gold standard.

Outpatient hysteroscopy

Modern fibre-optics has allowed the development of 3mm flexible hysteroscopes. Hysteroscopy is well tolerated⁽¹⁴⁾, though occasionally a para-cervical block has to be used. A directed endometrial biopsy can be performed at the same time⁽¹⁵⁾. Careful patient selection is required as the procedure is not suitable for all patients.

Transvaginal USS

This requires a trained operator and expensive equipment. It is an invasive test. The full double thickness of the endometrium is measured. The most commonly used limits used are 3mm, 4mm and 5mm.

An endometrial thickness of 5mm or more, in a postmenopausal woman, has a sensitivity of 80% in detecting carcinoma. This rises to 86% if the cut-off is 2mm or more⁽¹⁶⁾. The sensitivity may be further increased if combined with colour flow Doppler⁽¹⁷⁾. The advantage of transvaginal USS is that the ovaries can be assessed at the same time. A tissue sample is still required, however, to exclude carcinoma.

TIME INTERVAL FROM PRESENTATION TO DIAGNOSIS

PMB is endometrial carcinoma until proven otherwise.

From presentation, patients should be referred to the GOPD or PMB one-stop clinic urgently, ideally within the week and no later than two weeks. A tissue diagnosis should be made by the end of the following week, so that treatment for any malignancy can be planned as soon as possible.

CONCLUSION

The management of PMB needs to be tailored to individuals needs, with the primary aim of excluding endometrial carcinoma. Patients should be referred urgently for

assessment. The history and clinical examination, including cervical cytology, are essential in the initial assessment. There is a variety of methods for sampling the endometrium. Hysteroscopy and endometrial biopsy are the gold standard at present.

REFERENCES

- 1 Partridge EE, Shingleton HM, Menck HR The National Cancer Data Base Report on Endometrial Cancer J Surg Oncol 1996;61:111
- 2 Herbst *et al.* Comprehensive Gynaecology, 3rd edition 1997;29: 867
- 3 Elwood *et al.* Incidence of endometrial carcinoma by age. J Natl Cancer Inst 1977;59:1055
- 4 MacMahon B Risk factors for endometrial cancer. Gynaecol Oncol 1974;2:122
- 5 Studd JWW Complications of HRT in postmenopausal women. J R Soc Med 1992;85:376-8
- 6 Cook LS *et al.* Population-based study of tamoxifen therapy and subsequent ovarian, endometrial, and breast cancers. J Natl Cancer Inst 1995;87:1359
- 7 Nevin P *et al.* Tamoxifen and the uterus. Br Med J 1994;309:1313-4
- 8 Alberico S *et al.* A clinical and epidemiological study of 245 postmenopausal menorrhagia patients. Clin Exp Obstet Gynaecol 1989;4:113-121
- 9 Indraccolo SR *et al.* Possibility of the combined use of tumour markers in endometrial carcinoma. Min Gynaecol 1991;43:461-463
- 10 Dermirkiran F *et al.* The prognostic significance of cervico-vaginal cytology in endometrial cancer. Eur J Gynaecol Oncol 1995;16:403-409
- 11 Grimes DA Diagnostic D&C: a reappraisal. Am J Obstet Gynaecol 1982;142:1-6
- 12 Gimplerson RJ *et al.* A comparative study between panoramic hysteroscopy with directed biopsies and D&C. Am J Obstet Gynaecol 1988;158:489-92
- 13 Guido RS *et al.* Pipelle endometrial sampling. Sensitivity in the detection of endometrial cancer. J Reprod Med 1995;40:553-555
- 14 Kremer C *et al.* Patient satisfaction with outpatient hysteroscopy versus day case hysteroscopy RCT. Br Med J 2000;320:279-282
- 15 Downes E, Al-Azzawi F The predictive value of outpatient hysteroscopy in the menopause clinic. Br J Obstet Gynaecol 1993;100:1148-9
- 16 Dorum A *et al.* Evaluation of endometrial thickness measured by endovaginal USS in women with PMB. Acta Obstet Gynaecol Scand 1993;72:116-119
- 17 Sheth S *et al.* Endometrial blood flow analysis in postmenopausal women. Radiology 1995;195:661-665