Postmenopausal Bleeding From Benign Causes

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Postmenopausal bleeding is a symptom, not a diagnosis. Moreover, it must be regarded as a symptom of genital tract cancer until proven otherwise. All gynecologists know that there are nonmalignant causes of this symptom, but even if an apparent benign cause is present, can we in practice rely upon it explaining the patient's bleeding, and can we be sure there is not a cancer there as well? The answer is that only seldom can we be sufficiently certain that an apparently innocent cause of postmenopausal bleeding is a true explanation in any individual case; the usual procedures for excluding carcinoma of one or another of the genital organs are generally necessary when a patient presents with this symptom. This consideration colors our management of the patient with a nonmalignant condition which may explain her postmenopausal bleeding and will be applicable again and again in relation to the conditions now to be discussed.

A review of 249 patients, at the Chelsea Hospital for Women, London, in whom a benign cause for postmenopausal bleeding was identified reveals two common causes, two much less common, but present sufficiently often for them to be considered important, and a number of only occasional causes. These various conditions are listed in Table 1. This table bears out what most practical gynecologists would expect: the two most common conditions causing the symptom are atrophic vaginitis and cervical polyps. The fact that fibroids were recognized 24 times does not mean that they were the cause of the bleeding. Undoubtedly, a number of postmenopausal women have a fibroid, and some of these will present with bleeding for an unrelated cause or for perhaps no cause that can be identified. Endometrial hyperplasia occurs sufficiently often to cause concern, since many believe it sometimes to be a predecessor of endometrial carcinoma, especially if nuclear atypia is evident. This will be discussed more fully later in relation to hormone replacement therapy at the menopause.

The remaining causes occur occasionally. It is worthy of mention that hematuria from an intravesical lesion may present as postmenopausal bleeding,[1] the patient being uncertain of the origin of the bleeding that she notices after visiting the bathroom. Similarly, hemorrhoids may present in this way.

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TABLE 1. Benign Conditions Causing Postmenopausal Bleeding (Chelsea Hospital for Women)

Atrophic vaginitis	129
Cervical polypi	65
Fibroids	24
Endometrial hyperplasia	13
Cervical erosion	5
Trichomonal vaginitis	3
Hematuria	2
Trauma	2
Vaginal endometriosis	1
Hemorrhoids	1
Moniliasis	1
Bartholin's abscess	1
Vulval warts	1
Urethral caruncle	1
Total	249

Atrophic Vaginitis

The cause of this condition is well known to gynecologists. The stratified squamous epithelium of the vagina, stimulated by estrogens, is many layers thick, and the cells are rich in glycogen (Fig. 1). This glycogen is acted upon by the lactogenic bacilli in the vagina, and an acid discharge is produced that protects the woman of reproductive age from bacterial vaginitis. After the menopause the estrogen stimulation is withdrawn, and the vaginal epithelium shrinks and may be only a few cell layers thick (Fig. 2). No glycogen is evident in the cytoplasm of these cells, and no acid discharge is produced. The vaginal walls are therefore thin, dry, shiny, and easily abraded. Vaginal soreness either at coitus or at other times may result, and often there is a thin purulent-looking discharge, which may be bloodstained. Inspection of the vagina shows the walls to be red, shiny, and thin; and, in more marked cases, small bleeding spots may be evident.

The question the gynecologist has to answer is, Do these changes explain the symptoms that the patient has experienced? If these symptoms are as above-mentioned (i.e., vaginal soreness, dysparunia, and a bloodstained discharge), they probably do explain the symptoms; but if the patient has been complaining of frank bleeding another explanation is required. In the former instance it may be correct to limit the examination to a careful inspection of the vagina and cervix, a bimanual examination, and the taking of a cervical smear. In the latter

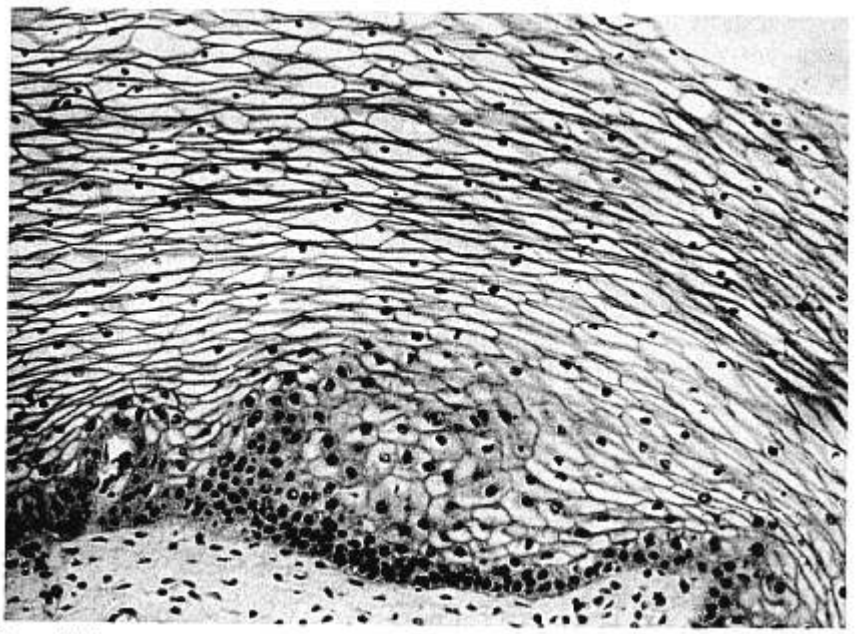

FIG. 1. *Stratified squamous epithelium of the vagina under the influence of estrogens. Compare with Figure 2.*

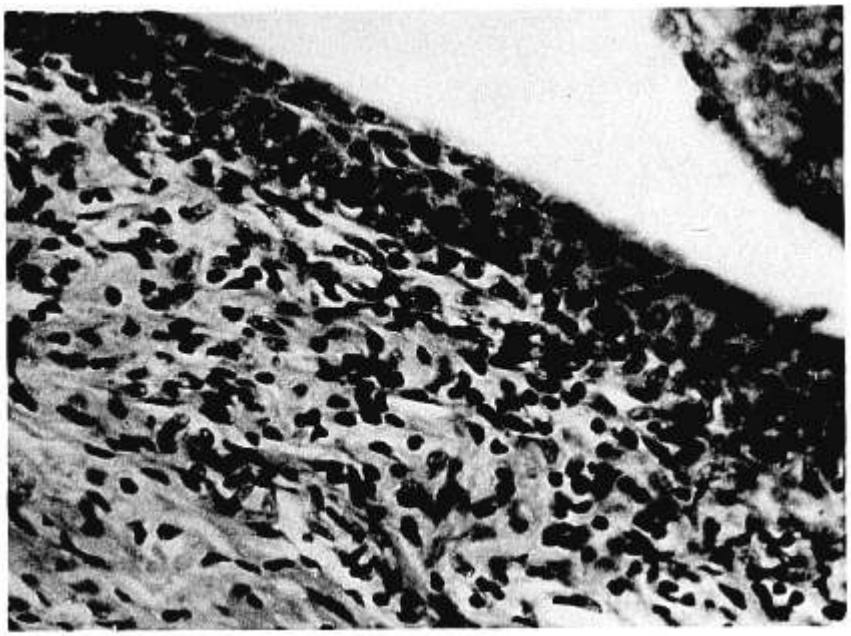

FIG. 2. *Thin epithelium of the vagina not under the influence of estrogen and showing none of the changes evident in Figure 1.*

instance, a curettage to exclude carcinoma of the uterine body is essential.

If it is decided to treat the atrophic vaginitis in the first instance, or if carcinoma has been eliminated, the correct treatment is to give an estrogen to improve the quality of the vaginal walls, lower the pH, and allow the infection to be overcome. This may be done by general or local means, the latter appearing preferable. An estrogen cream or pessary may be instilled into the vagina by the patient each night for 2 weeks. This medication will reverse all the atrophic changes and relieve the symptoms. The effect will wear off, of course, in time, if no further treatment is used; and consideration may be given to prescribing an estrogen cream once or twice a week over a longer period of time. It must be realized, however, that estrogen creams are absorbed from the vagina,[2] and they should not be used for too long, or for too often, without supervision. They are capable of causing some endometrial stimulation in certain cases, although in my experience, this is very uncommon.

The alternative is to give the estrogen by mouth. If there are other reasons for doing so, such as hot flashes and sweating, this will be a good treatment. However, it is important to combine the estrogen with a progestogen if they are to be used for any length of time (see below). In the absence of other symptoms calling for general estrogen administration, local therapy is preferable.

It must be stressed that if this type of treatment has been undertaken without exploration of the uterine cavity to exclude cancer, the features believed to be due to atrophic vaginitis should disappear within 2 weeks; and thereafter there should be no further bleeding of any kind. If there is, immediate curettage is mandatory.

Cervical Polyps

Cervical polyps seldom present any problem in diagnosis or management. They can often be felt with the finger during vaginal examination or easily viewed through a speculum. Usually they appear as soft, reddish,

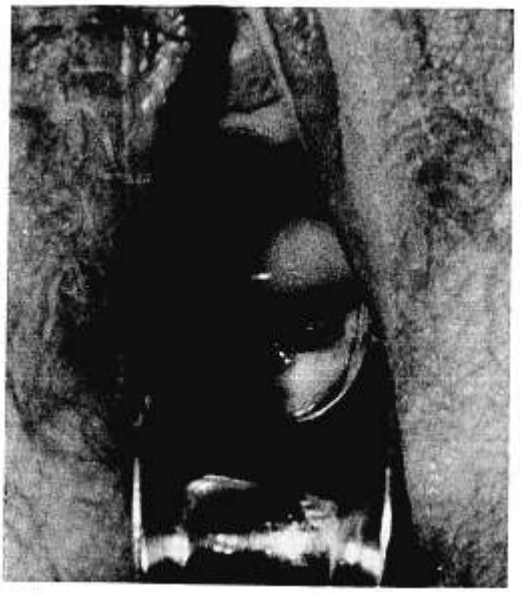

FIG. 3. *Two typical cervical polyps arising from just within the canal.*

oval objects arising from the region of the squamocolumnar junction of the cervix or from just within the canal (Fig. 3). They are generally single, but sometimes several are present together. They may or may not bleed at the time of the examination. However, they are undoubtedly a cause of spontaneous postmenopausal bleeding or bleeding after intercourse. The great majority are adenomatous polyps; some may be small leiomyomas.

One important question presented by a cervical polyp is, of course, whether it is benign or malignant; and another is whether the polyp is single or whether others are present within the uterine cavity. Sometimes a polyp visible at the cervix arises from within the uterine cavity (Fig. 4). All of these considerations relate to management.

Once the polyp is recognized, its immediate management is usually simple. It may be grasped by a sponge-holding forceps and gently twisted until it falls off. This management usually results in the avulsion of the entire polyp, but rarely it may be felt that the stalk has given way and the base remains behind. Once the polyp has been removed (or before if preferred, or if there may be a little bleeding), a cervical smear must be taken. One must perform a histologic examination to exclude malignancy. In most instances, the polyp will be found to be an isolated, benign lesion, and nothing more need be done.

Consideration should be given to doing more in certain circumstances. It may be argued that if a cervical polyp has formed, there may be endometrial hyperplasia, too; so if the endometrial cavity can easily be curetted with an aspiration curette in the office, that is all well and good. Sometimes in postmenopausal patients this procedure is painful and disturbing, in which case it should not be continued. If there are several polyps visible, they may be merely the external members of a group of intrauterine polyps, and curettage is probably indicated

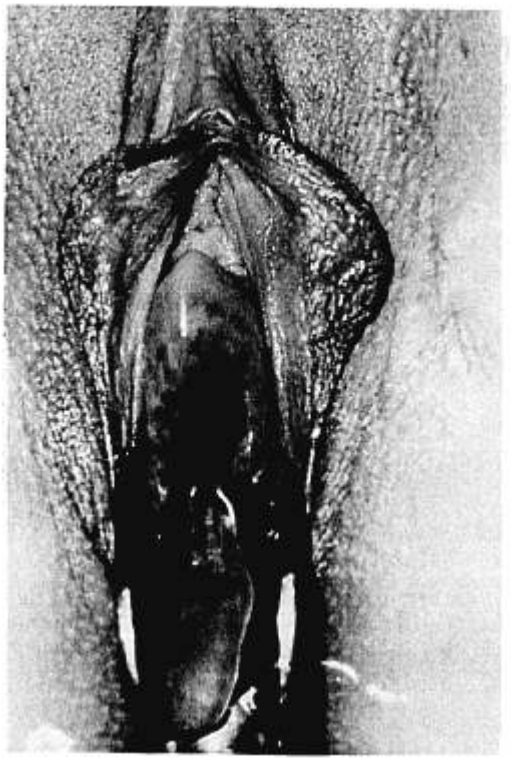

FIG. 4. *An apparent endocervical polyp which has, in fact, arisen from the lower part of the uterine cavity.*

as a formal procedure, under anesthesia. The removal of an intrauterine polyp may not be achieved with a curette alone, but the polyp can generally be grasped easily if a sponge-holding forceps is introduced into the uterine cavity, opened, closed, withdrawn, reintroduced, rotated, opened, closed, and withdrawn until we are sure that the cavity is empty. We cannot be sure that everything has been removed with a suction curette; so if we believe there may be other polyps present, the formal approach under anesthesia is indicated.

Sometimes the stalk of the polyp breaks during the twisting-off, and the base cannot readily be grasped and removed. In such a case, curettage or excision to ensure the complete removal of all of the base may be necessary. The histologic appearance of the body and tip of the polyp may not be in accordance with the appearance at the base, where malignant changes may be taking place. Therefore, removal of the complete polyp is necessary.

A polyp on a broad stalk, especially a fibroid polyp, is not suitable for twisting off as mentioned above. In this case ligature and division of the stalk should be performed. Should any polyp on histologic examination be shown to be malignant, the management is the same as in the case of carcinoma of the cervix, or at least of the uterine body, with extension into the cervix.

Fibroids

The palpation of a fibroid in a postmenopausal woman with bleeding does not necessarily mean that the fibroid causes the symptom. Fibroids probably do precipitate episodes of postmenopausal bleeding in some instances, most likely as a result of increased pelvic congestion, but it need not immediately be assumed that treatment for fibroids is necessary. What is necessary first in such a case is for carcinoma of the cervix or uterine body to be excluded as described. If fibroids are then found to be the only abnormality present, the decision on whether or not to treat them may be made after consideration of other aspects of the patient's case. If fibroids are known to have been present before and are clearly getting larger, this is a sign that suggests malignant degeneration, rare though it is. Surgery is then indicated. If the fibroids are large enough to cause other symptoms such as pressure on bladder or bowel, again, they should probably be removed. If they are smaller, however, and it is doubtful to what extent, if any, they have contributed to this episode of bleeding, they may be watched for a time. If there is no recurrence of the symptoms and no increase in size, intervention is probably unnecessary. Whether laparoscopy has a place in assessment is a moot point. In most instances looking at the peritoneal surface of the fibroid is unlikely to increase our understanding of its nature; so if laparoscopy has a place, that place is a small one.

Endometrial Hyperplasia

Perhaps the most important benign cause of postmenopausal bleeding is endometrial hyperplasia. This condition, in the opinion of many, is a precursor of uterine carcinoma and should, in all circumstances, be taken seriously. Hyperplasia, however, takes various forms, and the aspect to which most attention should be directed is the extent of nuclear atypia that is present. Simple endometrial hyperplasia without atypia probably presents little, if any, immediate threat to the patient. Adenomatous hyperplasia with severe atypia, on the other hand, may be a short step from carcinoma[3]; indeed, both may already be present in different parts of the uterine cavity.

The finding of endometrial hyperplasia, then, calls, first of all, for consultation with the pathologist on the severity of the condition. It next calls for consideration of any possible reason for hyperplasia. Benign "swiss cheese endometrium" has been known to exist for years after the menopause without causing any symptoms[4]; but an episode of bleeding may, sooner or later, occur. The presence of active endometrium, however, raises the possibility of recent

stimulation from endogenous or exogenous sources. The presence of an ovarian estrogenizing tumor, although a possibility, is an exceedingly rare one; unless a palpable ovarian swelling is present or there is evidence from the appearance of the vagina and cervix of good estrogenization, it would hardly be necessary to consider it seriously. The most likely cause, by far, for active endometrial hyperplasia is that the patient has been taking an estrogen preparation of some kind, which brings up an important aspect of management.

If the patient is no longer taking the estrogen, little else need be done except to follow her up. If she is continuing the estrogen, it is important to establish the details of her regimen. The view is now widely held that unopposed estrogen therapy is likely to cause endometrial hyperplasia, which may, if treatment is continued, become atypical and eventually malignant. Moreover, this carcinomatous change may develop before vaginal bleeding becomes evident. So if, for any reason, a particular patient is taking estrogen alone and declines to take an added progestogen, periodic endometrial sampling is essential. How often this is necessary will depend upon the histologic appearance of the endometrium and whether active nuclear atypia is evident. The patient should be urged to stop her treatment or to take a progestogen as well.

If the patient is taking an estrogen and a progestogen, after the menopause she will, in most instances, have withdrawal bleeding each cycle. Only occasionally in the patients attending the Menopause Clinic at Chelsea Hospital for Women, and then in patients on a very low estrogen dose, did vaginal bleeding not occur. This failure of withdrawal hemorrhage results from the predominant action of the progestogen in causing endometrial atropy.

It follows, therefore, that one large group of patients with postmenopausal bleeding will be those on hormone replacement therapy. They are taking a regimen that consists of cyclic estrogen administration with a progestogen for 10 days, and during the cycle it is probable that the risk of significant endometrial hyperplasia is small,[5] and periodic endometrial sampling need not be more frequent than every 1-2 years. Shorter progestogen regimens may not be as effective at protecting against hyperplasia. If the shorter regimen is not effective, the duration of the drug should be increased, or sampling should be undertaken more often.

In patients not receiving estrogen and in whom the endometrial hyperplasia with atypia has arisen de novo, two choices of treatment are available—surgical removal of the uterus before the stage of carcinoma is reached or the use of a progestogen alone for a period of time to induce the endometrium to revert to a less active, or even inert, form.[6] The preference of an individual patient for or against the surgical operation of total hysterectomy with removal of both appendages may influence the choice. My own preference would be for surgery in such a case unless (and such cases are now very rare) the patient was a poor surgical risk. Good results have been reported, however, with the use of a progestogen to halt and reverse the hyperplastic process. If this approach is used, endometrial sampling every 3 months is important to ensure that the atypical hyperplasia is diminishing under the influence of treatment.

Other Conditions

Of the remaining causes of postmenopausal bleeding noted in Table 1, cervical erosion is probably the most important. This condition can readily be recognized by the practicing gynecologist. Its appearance and its velvety, soft texture on palpation usually serve to distinguish it readily from a carcinoma. Needless to say, a cervical smear is imperative for confirmation of the clinical diagnosis. Once confirmed, the area of erosion may be destroyed by any of a variety of methods: heat or cold, cautery, or even laser treatment.

The presence of an ovarian tumor in a

patient with postmenopausal bleeding should immediately raise the likelihood of a malignancy. One should remember that, like a fibroid, the palpation of a tumor does not necessarily mean that it is causing the hemorrhage, and a curettage would be essential for one to exclude a corpus cancer before undertaking treatment of the ovarian lesion. If one were to open the abdomen to remove the tumor, which on inspection seemed benign, total hysterectomy with bilateral salpingo-oopherectomy would still seem appropriate treatment in the majority of instances, because it is difficult to be certain that such a tumor really is benign even on frozen section, and there is little need to preserve the uterus or the other ovary in a postmenopausal woman.

Little need be said about the treatment of the other conditions likely to cause bleeding. Trichomonas and *Candida* infections should be managed as they usually are. Vulvar warts, too, can be dealt with by any of the customary methods. They may be destroyed with Podophyllin, snipped off with scissors, or even destroyed with cautery, although this last approach is the least appealing. The need for biopsy for women in this age group to make sure that the viral warts are merely benign and not something more sinister should be emphasized.

The occurrence of an example of vaginal endometriosis causing postmenopausal bleeding is certainly a curiosity that is probably unlikely to be encountered by many. Trauma on coitus may result from vaginal or vulvar shrinkage (Fig. 5). Once the injury has settled or been treated, there may be a need to advocate the use of a lubricant at intercourse or even to employ an estrogen cream, as indicated earlier.

Finally, brief mention must be made of several other causes of postmenopausal bleeding that do not appear in Table 1, but that may, nevertheless, be encountered.

One cause of postmenopausal bleeding is vaginal adenosis. Nowadays we are so used to associating this condition with the adolescent and the young adult exposed in utero

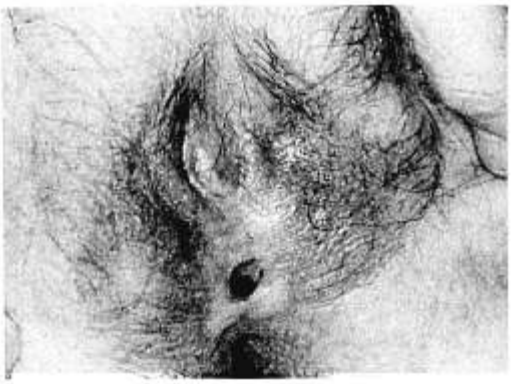

FIG. 5. *Extreme shrinkage of the vagina and vulva in an elderly woman.*

to diethylstilbestrol that we may forget that it can occur in older women and in the absence of estrogen therapy.[7,8] If there are large heaped-up glandular masses, which there may easily be, they may be injured at intercourse, and bleeding may result (Fig. 6). Such scant evidence as there is suggests that a degree of shrinkage of the adenosis is likely after the menopause. Set against that, however, the atrophy of the vaginal epithelium referred to at the beginning of this article may make abrasion over the surface of the lesions more likely, and bleeding may result. Biopsy should be undertaken to exclude the rare condition of carcinoma of the vagina in the older woman; but if this can be excluded, a policy of withholding surgical intervention is recommended unless the lesions are local and small. Otherwise, extensive surgery may become involved, and grafting may be necessary.

Another condition that can cause postmenopausal bleeding and is sometimes difficult to manage is pyometra. The cause of pyometra involves postmenopausal tissue shrinkage, the cervix becoming fibrous and stenosed. This condition may lead to the retention of a small amount of infected material inside the uterine cavity, and a bloodstained discharge results. There is always the need to exclude cancer; and if this can be done thorough dilatation of the cervix, it may give rise to sufficient drainage

FIG. 6. *Heaped-up masses of glandular tissue in a patient with vaginal adenosis who did not receive estrogen in utero.*

for the condition to be overcome. Recurrence is common, however, and then hysterectomy will usually be necessary.

Abrasion of the cervix in a postmenopausal patient with prolapse is an occasional cause of bleeding. A smear or even biopsy of the area to exclude cancer is necessary; and when this has been done, the patient can be treated by the most appropriate surgical means. Similarly, bleeding is very rarely seen if a foreign body is retained in the vagina with ulceration; a ring pessary has, in the past, been the most common foreign body causing this kind of ulceration. Removal of the foreign body and a little estrogen therapy is usually all that is required for healing.

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