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POST-MENOPAUSAL BLEEDING

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In life it is essential to be clear in thought. In order to attain this happy yet difficult mental state neat definitions are necessary. Once a fixed point is established the course set by the compass of discussion will be clear cut and will be a relatively easy one to follow. Although the word 'menopause' means 'the last period', as opposed to 'the climacteric' which denotes 'a critical period or change' (the latter referring to the whole physical and psychological period of involutionary change), by common usage the two terms, medically speaking, have become synonymous.

Any bleeding after the menopause—no matter whether the periods ceased normally or through artificial measures—is a serious symptom warranting a careful history with diligent clinical examination and special investigations. *Post-menopausal bleeding must always be considered as cancerous in origin until proved otherwise.* This cannot be stressed sufficiently. It may well be wise to make a slight diversion from the topic of discussion and to include another principle, viz. that *excessive or irregular bleeding at the time of the climacteric is abnormal and must always be regarded as abnormal.* Abnormal bleeding must never be considered a normal phenomenon. It demands pathological explanation. As cancer is detected in about 40% of patients complaining of post-menopausal haemorrhage it may, for purposes of clear understanding, be as well to consider the causes of this bleeding. They may fairly readily be classified as follows:

CAUSES OF POST-MENOPAUSAL BLEEDING

1. *Neoplasms*
   - (a) Malignant
     - Uterine
       - i. Cancer, cervix
         - Ectocervical
         - Endocervical
       - ii. Cancer, endometrium
       - iii. Uterine sarcoma
     - Extra-uterine
       - iv. Ovarian (functioning and non-functioning)
       - v. Cancer, vagina
       - vi. Cancer, vulva
       - vii. Spread from cancer, bladder or rectum
       - viii. Sarcoma of the above organs
       - ix. Cancer, Fallopian tube
   - (b) Benign:
     - i. Fibroid
     - ii. Ovarian
     - iii. Benign tumour of vagina or vulva
     - iv. Cervical polypus
2. *Hormonal: Oestrogen*
   - Hyper-
     - i. Therapy
     - ii. Secretory tumour
     - iii. Rejuvenescence of ovaries
   - Hypo-
     - i. Senile vaginitis
     - ii. Senile endometritis
3. *Inflammations*
   - Acute
   - Chronic
4. *Trauma*
   - Prolapse
     - Denudation of exposed cervix and vagina
     - Pressure sloughing due to corrective pessary
   - Rape
   - Accident
5. *Extra-genital* (difficult or impossible for the patient to localize the origin of the bleeding)
   - (a) Urinary tract lesions
     - Caruncles
     - Other causes of haematuria
   - (b) Bowel lesions
     - Causes of fresh bleeding from and through the anus

Cancer of the cervix uteri is responsible for the majority of the deaths occuring in the gynaecological wards of the Groote Schuur Hospital, Cape Town. It is a disease most commonly found in women of ages ranging between 40 and 45, and relatively often in the post-menopausal age. It is easily recognized in most instances, though recognition cannot take place without a vaginal examination, i.e. both palpation and the insertion of a speculum for inspecting the cervix. The effort required is minimal and the reward of recognizing an early cancer is so great that no one may venture to prescribe before the true clinical assessment has been completed. Under no circumstances should an erosion of the post-menopausal cervix be cauterized before an adequate biopsy has been taken and the histological diagnosis of the lesion established.

Even if the appearance of the ectocervical epithelium is normal, a cancer may yet be lurking in the endocervical canal. Further exploration therefore becomes essential. It is also to be emphasized that, if by some misadventure a previous subtotal hysterectomy has been performed, cancer of the cervical stump must always be kept in mind when subsequent bleeding takes place.

Endometrial cancer. The clinical finding of an enlarged uterus for her age in a patient complaining of bleeding after the menopause is significant. However, the size of the uterus is often totally unrelated to the cancer it may harbour. Therefore, all women presenting themselves with this symptom should be subjected to a painstaking, gentle, but thorough diagnostic curettage. Endocervical curettage is an essential part of the operation. The search for cancer should be thoroughly done. X-ray hysterography, at times, is of great assistance, indicating to which region, possibly behind a fibroid, or in pyometria, the curette should be directed.

Good observation has brought to light that a large-framed, relatively infertile, hypertensive woman who gives a story of a meno- and metrorrhagic climacteric period and a late menopause, and who has diabetes, is likely to develop endometrial cancer. It is of interest that of the 134 patients admitted to Groote Schuur Hospital during the period 1952-57, 27 had either frank diabetes or abnormal blood-sugar curves. A further analysis of this finding will be presented shortly.

Bleeding after the menopause may be found in association with large *ovarian tumours*—whether malignant or benign, functioning or non-functioning. Obviously the bleeding found in association with functioning tumours is mainly due to hyper-oestrogenism. The endometrium responds to the hormonal stimulus and with the flow and ebb of the circulating oestrogen it either grows or sloughs. In all probability the uterine bleeding found in association with large genital tumours is due to the various congestions mechanically produced by these lumps.

Sloughing and ulceration of a surface will result in bleeding. It is therefore also found in *cancers of the vulva and vagina*, whether primary or secondary.

Sarcomata of the genitalia are uncommon and may be the cause of bleeding.

As a general rule *fibroids* decrease in size after the involutionary change of the menopause. However, bleeding may be caused if the fibroid increases in bulk owing to a degenerative change or if it becomes submucous and pedunculated. Erosion of the surface of the fibroid tumour may result in profuse bleeding; in rare cases this occurs also with *benign vaginal and vulval lesions*.

Oestrogen excess. As normal endometrial bleeding is dependent upon hormonal influences, and as oestrogens are endometrial 'building' hormones, it does not require any stretch of imagination to realize that if oestrogens are administered for long periods, e.g. for controlling adverse menopausal phenomena, endometrial growth will result. Variation in the amount of circulating oestrogen will affect the endometrium, and may produce sloughing with concomitant bleeding. The same effects will be produced by tumours that produce oestrogen, e.g. granulosa-cell tumours or thecomata. In some women, for an inexplicable reason, a rejuvenescence of the ovaries occurs postmenopausally. This will result in oestrogen secretion, in turn followed by vaginal bleeding. Curettage will reveal endometrium in the proliferative phase.

Oestrogen deficiency, on the other hand, leads to vaginal and endometrial cellular atrophy. Haemorrhagic 'spotting' from these surfaces may therefore occur in the clinical conditions of senile vaginitis and senile endometritis. Of great importance, however, is the fact that with cellular atrophy infection may readily supervene. Both acute and chronic infection may produce a blood-stained vaginal discharge. Should the cervix be occluded, pus will collect in the uterus, which gradually distends and becomes a veritable bag of pus —pyometra—a condition frequently associated with uterine cancer.

Trauma. With the decrease in oestrogens following the menopause, the supports of the genitalia are adversely affected and symptoms and signs of a previous 'weakening' in this region may become aggravated. A prolapse may proceed apace and unless properly attended to will become complete. As the cervix is at the tip of the now inverted vagina, the area around it gradually becomes denuded of epithelium because of constant trauma and a poor return of venous blood and lymph. The ulcer so formed remains indolent until treated by vaginal replacement, hormone administration and cleanliness. An improperly fitting or rough-surfaced pessary will also erode away epithelium and be responsible for the production of an ulcer with bleeding. Vulval and vaginal injury by rape or by accident (falling on a hard object) will obviously cause bleeding.

Extra-genital bleeding. Not infrequently women state that their underclothes are bloodstained but that they cannot locate the origin of the bleeding; it may come from the urethra, vagina or anus. Inspection may reveal a caruncle or a bleeding pile, or the history and physical findings will point to urinary, anal or rectal pathology.

CONCLUSION

Very briefly most of the major causes of post-menopausal bleeding have been discussed. It must always be borne in mind that, no matter whether, for example, senile vaginitis or a urinary caruncle is found, the onus of making sure that a hidden cancer does not exist in the genital tract falls squarely on the shoulders of the medical attendant. It certainly will not benefit the patient if she is treated for senile vaginitis when, in addition, she has a cancer of the endometrium.

No woman who suffers from post-menopausal bleeding should be treated before cancer has been properly excluded. Any deviation from this principle will lead to untold and unnecessary suffering. The treatment for cancer is radical and possibly even maiming. The longer the disease has been missed clinically, the poorer are the patient's chances of survival. How sad it is to know that more mistakes in diagnosis are made by not thinking than by not knowing! Together we must be on guard against this mental trap of sluggish thought and deed.