SÃO PAULO MEDICAL JOURNAL

ORIGINAL ARTICLE

Luiz Cavalcanti de Albuquerque Neto, Marair Gracio Ferreira Sartori, Edmund Chada Baracat, Manoel João Batista Castello Girão, Geraldo Rodrigues de Lima

Postmenopausal genital bleeding

Division of Gynecology, Escola Paulista de Medicina, Universidade Federal de São Paulo - São Paulo, Brazil

The study was conducted on 748 women who reported genital bleeding occurring at least one year after the last menstruation. Benign causes were most frequent than malignant causes. Among the benign causes, the most frequent were cervicitis (19,95%), prolapsed uterus with decubitus ulcer (19,41%), dysfunctional hemorrhage (13,29%) and endometrial polyps (12,77%). In the group of malignant causes, cancer of the cervix was the neoplasm most often detected (59,26%); endometrial cancer was next, affecting 29,63%. The cancer of the cervix/ cancer of the body ratio was 2:1. In summary, many causes, both benign and malignant, can provoke abnormal postmenopausal bleeding. Thus, curettage of the uterus should be reserved for doubtful cases, i.e., in situations in which, after all non invasive methods of investigations have been exhausted, the possibility of the occurrence of malignant lesions still persist.

UNITERMS: Menopause. Genital bleeding.

INTRODUCTION

The climaterium is defined as the period of transition from the reproductive to the nonreproductive state in women's lives. This interval, which varies among individuals, is characterized by an aging process brought about by the regressive anatomofunctional changes of the ovaries.

Genital bleeding during the postmenopausal period is an event of important implications due to the sometimes severe diseases it reflects. This topic has been the subject of intensive study, although there is no general consensus about the time between menopause and the bleeding episode and its origin.

One year is considered to be a sufficient period of time for the stabilization of the endocrine changes and for the definition of bleeding as postmenopausal (4, 5,14,15,16,19, 20, 21). Some investigators have included in their studies only women with bleeding originating from the uterus (2,9,12), whereas others have also considered bleeding originating from the vagina, vulva or urethra (17).

Some studies have estimated that the relationship between postmenopausal blood loss and malignant genital neoplasms varies from about 63 to 90% (8,20,21). However, Muret (15) and Fahny (6) have reported a less frequent association of 27 to 43%.

On the basis of these figures, postmenopausal genital bleeding has been automatically related to malignant

Address for correspondence:
Luiz Cavalcanti de Albuquerque Neto
Rua Napoleão de Barros, 715 - 7º andar - V. Clementino
São Paulo - SP - Brasil - CEP 04023-002

genital neoplasms. Indeed, this has become a strong axiom for specialists.

However, in the light of new and modern knowledge of the physiology and pathophysiology of the reproductive tract and of well conducted clinical investigations, this adverse picture has been gradually changing. A decline in the incidence of malignant causes has been detected simultaneously with an increase in benign causes.

Thus, bleeding is observed in the presence of cervical and endometrial polyps, in cervicitis, in senile colpitis, in hyperplastic endometrial conditions, in leyomiomas, urethral caruncles, decubitus ulcers due to a prolapsed uterus, vaginal ulcers, and also in ovarian tumors with hormone production. Self-medication as well as inappropriate hormone prescription represent iatrogenic causes of the problem (3,7,11).It has been noted that in all studies in a certain number of cases ranging from 2,8 to 38,0%, etiology remains the obscure despite the concern about ruling out malignancy through a careful clinical and gynecological examination, triple oncologic colpocytology, cytology of material from the uterine cavity, endometrial or cervical biopsy and fractionated uterine curettage (1,10,20).

The objective of the present study was to evaluate postmenopausal genital hemorrhage its various aspects, especially in order to determine its more frequent causes and its relationship to clinical parameters.

MATERIAL AND METHOD

The study was conducted on 748 women who reported genital bleeding occurring at least one full year after the last menstruation. The women were selected from a group of 3300 patients older than 45 years and more than one year into menopause, seen at the Division of Gynecology, Escola Paulista de Medicina. Thus, the incidence of the bleeding was 21,8%.

Data related to age, race, menstrual history, obstetrical history, findings of general and gynecological physical examination, as well as cervico-vaginal cytology, colposcopy and the results of biopsies of suspicious lesions of the vulva, vagina and cervix, were recorded. Finally, the results of the anatomopathologic examination of the endometrium obtained by fractionated curettage of the uterus were also recorded.

RESULTS

Fig. 1 presents the age distribution of the patients studied, and fig. 2 the racial distribution. Fig.3 shows that most women had more than five deliveries.

Menopause occurred most frequently between 40 and 49 years (table 1) and the interval between extemporaneous bleeding and menopause was mainly more than 10 years (table 2).

As to etiology, 51,65% of the causes (376 cases) were benign, 33,38% (243 cases) were malignant, and in only 14,97% (109 cases) could not be determined (Fig.4).

Among the benign causes, the most frequent were cervicitis and decubitus ulcer in a prolapsed uterus (19,95% and 19,41%, respectively). Dysfunctional bleeding diagnosed in the absence of organic lesions and endocervical polyps were similarly distributed (their frequencies were 13,30% and 12,77%, respectively). In

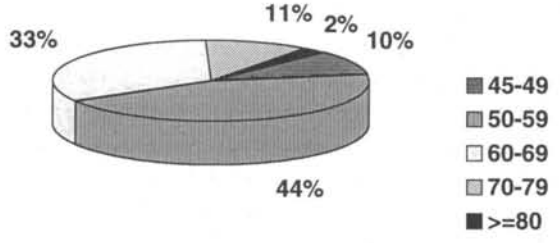

Figure I - Age Distribution

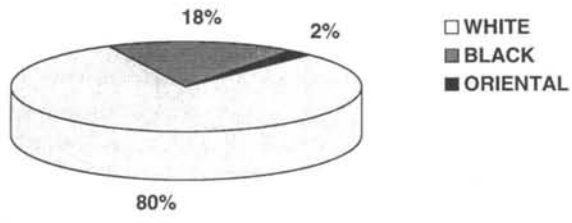

Figure 2 - Distribution by race

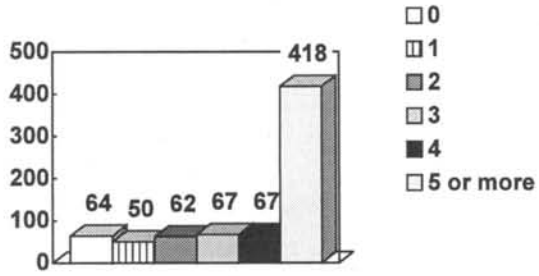

Figure 3 - Distribution by parity

contrast, endometrial polyps were detected less frequently (4,25%). Senile vulvovaginitis, which favors bleeding due to the fragility of the atrophic mucosa, was detected in 9,31% of cases. Uterine myoma (4,25%), urethral caruncles (3,72%), endometrial atrophy (3,19%), endometritis (2,66%) and iatrogenic causes (3,72%) were less frequent causes of the disorder. Hormone-producing ovarian tumors and vaginal ulcers occurred in approximately 1% of cases (Table 3).

In the group of malignant causes, cancer of the cervix was the neoplasm most often detected, corresponding to 19,78% of all cases and to 59.26% of the malignant causes in general. Endometrial cancer was the next, affecting 9,89% of all cases and representing 29,63% of the malignant causes (Table 4). Thus, the ratio of cancer of the cervix to cancer of the uterine body was 2:1, as ilustrated in Table 5.

Among ovarian tumors, five were granulosa cell tumors and two were theca cell, corresponding to 2,88% of the total.

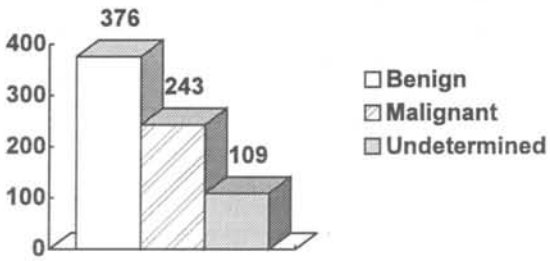

Figure 4 - Causes of postmenopausal genital bleeding

Table I
Age of menopause

Age (years)	N	%
up to 39	20	2.75
40-49	369	50.69
50-59	322	44.23
60 or more	17	2.33
Total	728	100.00

Table 2
Interval between menopause and the extemporaneous bleeding

Interval	N	%
1-4	220	30.2
5-9	174	23.9
>10	334	45.9
Total	728	100.0

Less frequent were leiomyosarcomas (four cases, 0,54%), carcinoma of the ovary (1,26%) and neoplasms of vulva and vagina (0,41%).

DISCUSSION

In the present study, we analyzed women with postmenopausal genital bleeding who were hospitalized or seen as outpatients, a fact that allows a broader evaluation of etiology.

As also reported by Mathieu et al. (13), we detected the highest frequency of bleeding in women aged 50 to 60 years and more than 10 years into menopause.

There was a higher incidence of benign causes explaining the bleeding episodes, in agreement with date reported by Israel and Weber (9), Rendina et al. (17) and Procopé (16).

Chronic cervicitis, detected in 75 cases, followed by decucitus ulcer in a prolapsed uterus (73 cases) were the major causes of bleeding. In some studies, the latter situation seems to be the major etiology (3, 20).

Table 3
Benign Causes

Causes	N	%
Cervicitis	75	19.95
Prolapsed uterus with decubitus ulcer	73	19.41
Dysfunctional hemorrhage	50	13.30
Endocervical polyp	48	12.77
Senile vulvovaginitis	35	9.31
Uterine myoma	17	4.52
Endometrial polyp	16	4.25
Urethral caruncle	14	3.72
Iatrogenic causes	13	3.46
Endometrial atrophy	12	3.19
Endometritis	10	2.66
Ovarian tumor	4	1.06
Secretory endometrium	3	0.80
Nonspecific vaginal ulcer	3	0.80
Vulvar leucoplasia	2	0.53
Pessary	1	0.27

Table 4
Malignant causes

Causes	N	%
Cancer of the cervix	144	59.26
Cancer of the endometrium	72	29.63
Functioning ovarian tumor	7	2.88
Leiomyosarcoma of the uterus	4	1.64
Cancer of the ovary	9	3.70
Cancer of the vulva	3	1.24
Cancer of the vagina	3	1.24
Melanoma of the vagina	1	0.41

Table 5
Cause correlation between the two periods studied (1950-72 and 1973-86)

Causes	Period			
	1950-1972		1973-1986	
	N	%	N	%
Cancer of the cervix	112	71.34	32	56.14
Cancer of the body	45	28.66	25	43.86
Cervix / body ratio	2.48		1.27	

Richly vascularized endocervical polyps caused genital bleeding in 12,77% of the women studied, an incidence close to that reported by Jones and Cantor (11). Endometrial polyps were less frequent.

The incidence of senile vulvovaginitis should be emphasized, in view of the fact that rupture pf the delicate vessels of the atrophic mucosa may occur.

Among the malignant causes of bleeding, cervical cancer was the most common, followed by endometrial cancer, resulting in a 2:1 ratio.

Literature has shown a definite decline in the frequency of cervical cancer, to the point that a progressive decrease in cervical cancer/ cervical body ratio has been occurring, with an inversion actually taking place. This due to two factors: on one hand, the wide application of screening methods for the detection of precursor lesions, and on the other the concrete increase in the incidence of cancer of the endometrium due to the reduction of number of births, better nutritional conditions (obesity), the indiscriminate use of estrogens, and other still unexplained factors (18).

In summary, many causes, both benign and malignant, can provoke abnormal postmenopausal genital bleeding. A properly conducted pelvic examination with the aid of ultrasonography can exclude pelvic diseases such as ovarian or uterine tumors. The progesterone test, allied to endometrial cytology and hysteroscopy, can identify hyperplasias or malinant neoplasms in the endometrium. Thus, curettage of the uterus should be reserved for doubtful cases, i.e., in situations in which, after all nonivasive methods of investigation have been exhausted, the possibility of the occurrence of malignant lesions still persists

RESUMO

Material e Métodos: Estudaram-se 748 mulheres com queixa de sangramento genital após um ano de menopausa. As causas benignas foram mais freqüentes que as malignas. **Resultados:** Dentre as causas benignas, as mais freqüentes foram cervicite (19,95%), úlcera em decúbito em útero prolapsado (19,41%), hemorragia disfuncional (13,29%) e polipo endometrial (12,77%). No grupo das causas malignas, o câncer de colo foi a neoplasia mais detectada (59,26%), seguido pelo câncer endometrial (29,63%). A relação câncer do colo/câncer do corpo foi 2:1. **Conclusão:** Em resumo, muitas causas, tanto benignas quanto malignas, podem provocar o sangramento genital na pós-menopausa. Desta forma, ficaria a curetagem uterina reservada para os casos duvidosos ou seja, em situações nas quais a possibilidade de lesões malignas ainda persista, após a utilização de métodos diagnósticos não invasivos.

REFERENCES

1. BREWER, J.I. & MILLER,W.H. -Postmenopausal uterine bleeding. **Am.J.Obstet.Gynecol. 67:**988-1013, 1954.
2. BULDAIN, M. & JACOBS, W.M. - Postmenopausal uterine bleeding **Obstet.Gynecol. 6:** 671-674, 1955.
3. COPE, T.I. - Some aspects of postmenopausal bleeding. **Obstet. Gynecol. 7:**153-160, 1956.
4. COPENHAVER, E.H. - Postmenopausal bleeding related to estrogen therapy, an increasing problem. **Geriatrics 23:** 128-130, 1968.
5. DECIO, C. - La terza gonade. **Riv.Obstet.Ginecol. 5:**521-526, 1950.
6. FAHNY, E.C. - An analysis of 937 cases of post-menopausal haemorrhage **J.Obstet.Gynecol.Brit.Emp. 4:**596-510, 1933.
7. GAMBREL, R.D. Jr. - Postmenopausal bleeding. **J.Am.Geriatric Soc. 22:**337-343, 1974.
8. GEIGER, C.J. -Postmenopausal bleeding. **Illinois M.J. 80:**406-409, 1941.
9. ISRAEL, S.L. & WEBER, L.L. -Postmenopausal uterine bleeding **Obstet.Gynecol. 7:** 286-292, 1956.
10. JONES, W.N. & MAHONEY, P.L. - A study in postmenopausal uterine bleeding. **Am.Surg. 23**: 58-69, 1957.
11. JONES, B.D. & CANTOR, E.B. - Postmenopausal bleeding and its management. **Am.J.Obstet.Gynecol 62**:365-368, 1951.
12. LILLIBERG, M.J. & WOODBURN, R.L. - Menopausal and postmenopausal. **Geriatrics 17**: 390-397, 1962.
13. MATHIEU, J.; MOUSSELON, J.; VILLDEDIEU, A. - A propos de 270 observations de metrorragies postmenopausiques. **Lyon. Chir. 56**:139-144, 1960.
14. MIYAZAWA, K.- Clinical significance of an enlarged uterus in patients with postmenopausal bleeding **Obstet.Gynecol. 61**: 18-152, 1983.
15. MURET, M.- Des hémorragies postclimatériques. **Gynecol. Obstet., 15**: 241-258, 1927.
16. PROCOPÉ, B.J. - Aetiology of postmenopausal bleeding. **Acta Obstet.Gynecol.Scand. 50**: 311-313, 1971.
17. RENDINA, G.M.; BONIFANTE, C.E.; CONSTANTINI, O. -Le emorragie genitale della post-menopausa (studio clinico su 923 casi). **Riv Obstet.Ginecol.Prat. 46**: 962-729, 1964.
18. RODRIGUES DE LIMA, G. - Neoplasia malignas do corpo uterino In: Tratado de Oncologia Tocoginecológica e mamária. BARUFFI,I. ed. São Paulo, Rocca LTDA, 1985, p. 150-176.
19. SILVA CARVALHO, J. - Sobre o significado das metrorragias da pós-menopausa no diagnóstico do cancro uterino **Arg. Pat. 39**: 127-130, 1967.
20. TELINDE, R.W. - A clinical and pathologic study of postmenopausal bleeding. **South.Med.J. 36**: 571-576, 1930.
21. TELINDE, R.W. - Pathological significance of bleeding after the menopause. **Wis.Med.J. 36:** 521-527, 1937.