

Diagnostic hysteroscopy after postmenopausal uterine bleeding

H. S. CRONJÉ

Summary

Hysteroscopy was done immediately before diagnostic fractional curettage in 93 patients with postmenopausal uterine bleeding, as well as in 84 control patients with premenopausal abnormal uterine bleeding. About 13% of patients in both groups were receiving hormonal therapy, while patients with intra-uterine devices were excluded from the study. Bleeding within the uterine cavity obscured the view at hysteroscopy in 3,6% of premenopausal patients, but in none of the postmenopausal patients. Comparison of the final diagnoses in the two groups revealed more endometrial polyps and carcinoma in the postmenopausal patients. However, no tissue for histological examination was obtained at fractional curettage in 28% of the postmenopausal patients, compared with only 4,8% of premenopausal patients ($P < 0,0001$). Thus the combined use of hysteroscopy and fractional curettage significantly improves diagnostic accuracy in postmenopausal patients.

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Since the recent development and popularization of hysteroscopy,¹⁻³ controversy has arisen regarding the exact indications for its diagnostic use. Hysteroscopy has been practised at Tygerberg Hospital since 1977. A previous study from this institution confirmed its accuracy with regard to the final histological diagnosis of endometrial lesions.⁴ The present study was undertaken to evaluate the usefulness of hysteroscopy in patients with postmenopausal bleeding.

Patients and methods

The study group consisted of 93 postmenopausal patients with abnormal uterine bleeding, and a control group of 84 premenopausal patients with a similar problem. All patients admitted to the study and control groups were unselected, consecutive cases in a routine gynaecological service. Patients with intra-uterine devices were excluded from the study, but those receiving hormonal therapy were included.

Fractional dilatation and curettage was performed in every case. Hysteroscopy was done after endocervical curettage, but before curettage of the uterine fundus. The hysteroscopic diagnosis was compared afterwards with the final histological diagnosis. Hysteroscopy and curettage were done either under

general anaesthesia or paracervical block with 20 ml 1% lignocaine solution.

A Storz hysteroscope was used with fluid distension of the uterine cavity. Fluids used were mainly normal saline and 5% dextrose in water. Macrodex-40 was used when bleeding which obscured the view occurred within the uterine cavity. To minimize spillage of fluid through the fallopian tubes the maximum pressure used for distension was 70 mmHg.

In the analysis of the endometrial specimens only histological diagnoses were used: normal, myoma, polyp, hyperplasia, carcinoma, and 'none'. Only one diagnosis per patient was allowed. Where more than one diagnosis was possible, the most significant one was used. Myoma was considered more significant than normal, polyp more than myoma, hyperplasia more than polyp, and carcinoma more than hyperplasia. 'Normal' included atrophic, proliferative and secretory endometrium as well as endometritis. 'None' indicated those cases where no endometrial tissue for histological diagnosis was obtained.

The hysteroscopic diagnoses were then compared with the histological diagnoses; cases in which no histological diagnosis was possible were excluded. These correlations were classified as 'no difference', 'some difference', and 'total difference'. 'Some difference' indicated situations where different expressions were used but the clinical implication was identical in both the hysteroscopic and the histopathological diagnosis. Where hysteroscopy was unsuccessful because of bleeding, the comparison with the histological diagnosis was classified as a 'total difference'.

Results

In both the postmenopausal and premenopausal groups, 13% of the patients were receiving steroid hormones. The mean age in the postmenopausal group was 62 years (range 44-78 years) and in the premenopausal group 39 years (range 23-52 years). The postmenopausal patients were of higher gravidity (5 compared with 4 in the control group).

General anaesthesia was used for hysteroscopy and curettage in about 60% of the patients in both groups, and paracervical block in the remainder. Saline was used as the distension medium in 61% of the postmenopausal patients, 5% dextrose in water in 26% and Macrodex-40 in 13%. In the control group 24% of patients were examined with Macrodex-40 because intra-uterine bleeding, making visualization difficult, occurred more often in this group.

The hysteroscopic examination was unsuccessful because of bleeding in 3,6% of patients in the premenopausal group, compared with none in the postmenopausal group. Hysteroscopy was successful in 18% of postmenopausal and 35% of premenopausal patients despite troublesome bleeding. In the remainder of the patients no troublesome bleeding occurred.

Comparing the final histological diagnoses in the two groups, a significantly higher incidence of abnormal lesions was found in the postmenopausal group ($P < 0,0001$) (Table I). In significantly more patients in the postmenopausal group no histological diagnosis was possible ($P < 0,0001$) because no tissue for examination had been obtained at curettage (Table I). The accuracy of the hysteroscopic diagnoses was not significantly different from that of the histological diagnoses (Table II).

TABLE I. HISTOLOGICAL DIAGNOSES OF ENDOMETRIAL LESIONS

Diagnosis	Postmenopausal		Premenopausal	
	No.	%	No.	%
Normal	17	18,2	57	67,8
Myoma	9	9,7	8	9,5
Polyp	20	21,5	10	11,9
Hyperplasia	5	5,4	5	6,0
Carcinoma	16	17,2	0	0
None	26	28,0	4	4,8
Total	93	100,0	84	100,0
No hysteroscopic diagnosis	0		3	

TABLE II. CORRELATION BETWEEN HYSTEROSCOPIC AND HISTOLOGICAL DIAGNOSIS

Correlation	Postmenopausal		Premenopausal	
	No.	%	No.	%
No difference	50	74,6	52	65,0
Some difference	10	14,9	23	28,8
Total difference	7	10,5	5	6,2
Total	67	100,0	80	100,0

Discussion

An incorrect diagnosis at hysteroscopy was more common in the premenopausal group. Secretory endometrium was most often misinterpreted because of its thick and often polypoid appearance. In postmenopausal patients endometrial polyps and submucous myomas were most often confused with each other, since a submucous myoma covered by a thin layer of endometrium may resemble an endometrial polyp. With experience, these faults are minimized. Sugimoto¹ gives an excellent description of the hysteroscopic appearance of the different types of endometrium and its abnormalities.

Hysteroscopy is a simple, well-tolerated procedure in the postmenopausal woman. The endometrium is usually atrophic and bleeds less than the endometrium of menstruating women. Haemorrhagic areas often exist in a postmenopausal uterus, but with rinsing of the uterine cavity excellent visualization is usually possible. Endometrial polyps are more fibrous in postmenopausal women and therefore more difficult to sample or to remove at curettage. Excessive bleeding in a postmenopausal woman should always arouse the suspicion of endometrial carcinoma.

In premenopausal women the endometrium is more haemorrhagic than in postmenopausal women so that timing of the procedure is crucial in minimizing bleeding. Shortly after menstruation a clear view is usually obtained, but secretory endometrium is usually thick and haemorrhagic, making hysteroscopy extremely difficult.

The advantages of using hysteroscopy in the diagnostic examination of postmenopausal bleeding are: (i) postmenopausal women with abnormal bleeding have a higher incidence of intra-uterine lesions than premenopausal women; (ii) hysteroscopy in postmenopausal women is often successful because of the absence of functional endometrium; and (iii) combined hysteroscopy and curettage makes diagnosis possible in over 90% of patients, compared with about 72% with curettage alone.

In conclusion, hysteroscopy puts the clinician on firmer ground in the evaluation of patients with postmenopausal bleeding because it tends to eliminate the uncertainty of residual undiagnosed intra-uterine lesions. The routine use of the hysteroscope is suggested in these patients, but not in premenopausal patients with abnormal bleeding.

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