

Diagnostic & Operative Hysteroscopy In The Management of Post Menopausal Bleeding

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Summary

Postmenopausal bleeding warrants a thorough investigation, especially to rule out malignancies of the endometrium. Techniques like cytology, histopathology, TVS, CT, MRI and hysteroscopy are used and their relative merits are discussed:

Hysteroscopy offers the accepted advantages of direct visualization, targeted biopsy and simultaneous surgical resection of polyps and fibroids.

Among 836 hysteroscopies done in 4 years, 95 were done for postmenopausal bleeding; 34 had no obvious pathology, 16 had low risk, 4 had high risk hyperplasias and only 5 had endometrial malignancies. Thirty six out of the 50 polyps and fibroids found on hysteroscopy were confirmed by histopathology.

Fifty one patients in this group underwent operative hysteroscopy, 26 had hysterectomy and the rest were advised HRT or progesterone.

In contrast to Western women, who accepted hysteroscopy as the final modality of treatment, more Indian women opted for hysterectomy.

Introduction

Any episode of post menopausal bleeding should alert the gynaecologist to thoroughly evaluate the genital tract, especially to rule out malignancies of the endometrium.

Traditionally several techniques have been used for the evaluation of postmenopausal bleeding.

Cytological evaluation can be done by pap smear, endometrial lavage or endometrial brush; tissue can be obtained for histopathology by fractional curettage, Novak's curette, vabra aspirator, Tis-U-Trap or pipelle curette; direct visualization and guided biopsy can be done by hysteroscopy; and imaging of pelvic organs can be done by techniques like ultrasound, computerized tomography or magnetic resonance imaging. (Rock and Thompson 1997).

Hysteroscopy now plays a fundamental role in gynaecological practice. It has even greater diagnostic accuracy in cases of post menopausal bleeding as it not only provides a direct intra cavitory view, but also gives an opportunity for performing specific biopsies. There is an additional advantage that the diagnostic procedure can be extended into an operative procedure, to tackle benign organic problems like polyps and submucous fibroids.

Materials and methods

From November 1994 to November 1998, 836 hysteroscopies were performed at Swapna Nursing Home, Hyderabad; 95 out of these 836 cases (11.36%) were done as diagnostic procedures for post menopausal bleeding (Table-I). All these patients had a transvaginal sonography prior to hysteroscopy to assess the uterine size, endometrial thickness and any associated uterine

or ovarian pathology. Hysteroscopies were performed under general anaesthesia and glycine was used as the distending medium. Guided biopsy or curettage was done and tissue was submitted for histopathological examination. Where a benign organic cause like a polyp or a submucous fibroid was found, the diagnostic procedure was extended into an operative procedure and polypectomy or resection were done appropriately. Forgotten IUCDs were simultaneously removed. All the patients were discharged on the same day and were asked to come for review with the histopathology reports depending on which further management was planned.

Table I : Post menopausal bleeding as indication for hysteroscopy

	No.	%
Total no. of hysteroscopies (1994-1998)	836	100
Cases of postmenopausal bleeding	95	11.36

Counseling was done for hormone replacement therapy for those with atrophic endometrium; for progestosterone therapy for those with low risk endometrial hyperplasias and for hysterectomy for those with high risk endometrial hyperplasias, uterine malignancies and associated uterine or ovarian tumours. Patients who had complete removal of benign organic causes like polyps and submucous fibroids were reassured that the cause had been removed. All of them were advised to come back for a follow up after 3 months and subsequently once in a year.

Results

Postmenopausal bleeding constituted the indication for hysteroscopy in 11.36% of patients (95 out of 836) over a period of 4 years. The hysteroscopic findings are listed under Table-II and the endometrial histopathology under Table-III.

Table II ; Hysteroscopic findings in 95 women with post menopausal bleeding.

	No.	%
Normal	9	9.47
Atrophic (Fig. 4)	10	10.52
Hyperplastic endometrium (Fig. 1)	13	13.68
Malignancy	5	5.26
Polyps – Uterine (Fig. 2)	37	38.94
Polyps – Cervical	7	7.36
Submucous fibroids (Fig. 5)	6	6.31
Synechiae	6	6.31
Foreign bodies (IUCD) (Fig. 3)	2	2.1



Fig 1 Hyperplastic Endometrium with Polyp



Fig. 2 Uterine Polyps



Fig 3 IUCD

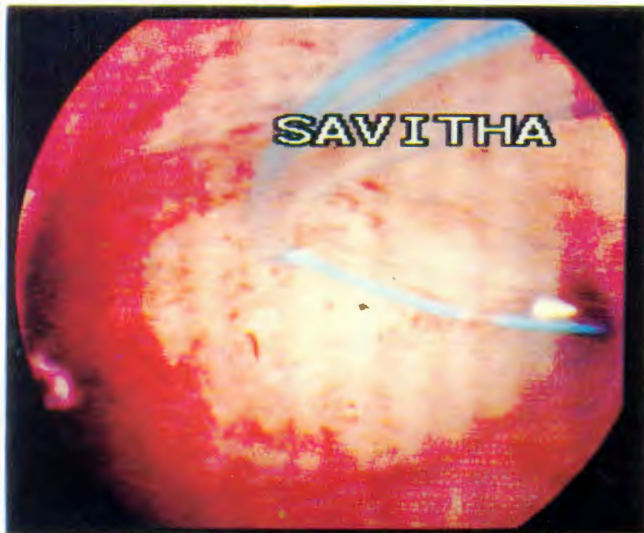


Fig 4 Atrophic Endometrium (Fine blue catheter for out flow)



Fig 5 Submucous Fibroid

Table III: Endometrial histopathology in 95 women with post menopausal bleeding.

	No.	%
Normal (Proliferative / Secretory)	14	14.73
Simple glandular hyperplasia	3	3.15
Cysto glandular hyperplasia	13	13.68
Atypical	4	4.21
Adenocarcinoma	3	3.15
Squamous cell carcinoma	1	1.05
Leiomyosarcoma	1	1.05
Endometrial polyps	22	23.15
Fibroid polyps	5	5.26
Fibroids (submucous)	2	2.1
Cervical polyps	7	7.36
Atrophic	20	21.05

Operative hysteroscopy was performed in 51 patients (53.68%). All the 37 cases of endometrial and fibroid polyps, 4 out of 6 cases of submucous fibroids and 7 out of 7 cases of cervical polyps have been resected (Table-IV).

Table IV: Operative hysteroscopy for postmenopausal bleeding (51/95-53.68%)

Cause	No.	Op. HS	%
Polyps	37	37	100
Submucous fibroids	6	4	66.66
Cervical polyps	7	7	100
Low risk hyperplasia	16	1 (TCRE)	6.25
Lost IUCDs	2	2	100

Twenty six patients in this group had total hysterectomy with bilateral salpingo-oophorectomy for various indications- (Table-V). Two patients with atypical hyperplasia were advised hysterectomy, but were lost for followup.

Table V: Indications for hysterectomy in women with postmenopausal bleeding.

	No.
Atypical Hyperplasia	2
Submucous fibroid/fibroids	6
Adenocarcinoma	3
Cystoglandular hyperplasia	3
Fibroids + Brenner's tumours of ovaries	1
Polyp	5
Simple hyperplasia	1
Squamous cell carcinoma	1
Chronic cervicitis/dysplasia	2
Recurrent post menopausal bleeding	1
Leiomyosarcoma	1
Total	26

Even though several patients with recurrence of postmenopausal bleeding after medical treatment of low hyperplasias were offered transcervical resection of endometrium, only one patient accepted to undergo the procedure and the others preferred hysterectomy. Likewise 5 patients after resection of polyps, 2 patients with cervical dysplasia and 6 patients with multiple fibroids insisted on having a hysterectomy.

There was one uterine perforation while resecting a submucous fibroid and hysterectomy was performed. This only complication occurred in the initial few cases of operative hysteroscopy.

There were 2 patients in our series who were

under treatment with tamoxifen following mastectomy for carcinoma of the breast. Both the patients had endometrial hyperplasia, one atypical and one cystoglandular.

Discussion : Hysteroscopy as a diagnostic method.

There are several studies evaluating the accuracy of different diagnostic methods in the assessment of intracavitary and endometrial lesions. (Alcazar & Laparte 1995, Conoscenti et al 1995, Gupta et al 1996), Marzatti et al 1994, Pace et al 1995).

Hysteroscopy allows (Pace et. al. 1995)

1. the measurement of the extension of the intracavitary neoplastic pathology.
2. the definition of the topographic map of the lesion
3. targeted biopsy of the lesion.
4. the evaluation of extension of the neoplasia into the cervical canal.
5. inspection of endometrial features like colour, vascularity, thickness, and necrotic areas. (Saccucci et al 1995).

It is accepted that transvaginal sonography has a good sensitivity (Alcazar et al 1996, Cacciatore et al 1994, Conoscenti et al 1995, Gupta et al 1996, Mencaglia 1995) and can be used as a first step in evaluating a woman with post menopausal bleeding, but hysteroscopy is more specific (Alcazar et al 1996, Gupta et al 1996) and the combined use of hysteroscopy and biopsy leads to near 100% accuracy in the diagnosis of endometrial neoplasia and its precursors (Mencaglia 1995).

Endometrial thickness of more than 4-5mm is taken as abnormal (Alcazar et al, 1996, Conoscenti et al, 1995, Cacciatore et al, 1994, Maia et al, 1996) and warrants further investigation, but it cannot differentiate accurately between hyperplasia, polyps or endometrial carcinoma (Conoscenti et al; 1995, Maia et al; 1996).

It is an invaluable diagnostic tool in excluding ovarian pathology (Gupta et al; 1996).

In our series, cases of malignancies had an endometrial thickness of more than 20mm. Where the endometrium was found to be atrophic on hysteroscopy, the ultrasound also showed only 3-5 mm thickness. It could not differentiate between endo hyperplasia and polyp- accurately.

Magnetic resonance imaging is more helpful in the diagnosis of channel invasion and to assess the involvement of the pelvic and extra pelvic lymph nodes (Marzetti et al, 1994)

The hysteroscopic findings in the present series (Table-VI) were compared with those of Liu et al, (1995) in a series of 135 patients. Endometrial malignancy as a cause of post menopausal bleeding constituted less than 10% in both the series.

Table VI : Comparative study of hysteroscopic findings (Liu et al 1995)

	Liu et al (1995) T=135 %	Present series T=95 %
Normal	-	9.47
Atrophic endometrium	45.92	10.52
Endometrial polyp	18.51	38.94
Cervical polyp	9.62	7.36
Endometrial carcinoma	9.62	5.26
Endometrial hyperplasia	8.14	13.68
Synechiae	-	6.31
Submucous fibroid	3.7	6.31
Intrauterine device	4.44	2.1

The endometrial histopathology findings, are listed in Table-III. The hysteroscopic diagnosis was 100% accurate in endometrial malignancies, submucous fibroids, synechiae and foreign bodies. Polyps were over diagnosed (34 on histopathology as against 44 on hysteroscopy) as some localised areas of cystoglandular hyperplasia were mistaken for polyps, especially, in the initial cases.

Out of 95 patients 34 had no obvious pathology (20-atrophic endometrium and 14 normal endometrium). 36 patients had polyps and fibroids, 16 patients had low risk endometrial hyperplasia and only less than 10% showed premalignant or malignant lesions (4 high risk hyperplasia and 5 malignancies).

These findings in the present series were compared with the endometrial histopathology in a series of 45 patients reported by Cacciatore et al, (1994) (Table VII). There were more cases of endometrial polyps and adenocarcinoma in their series. Our patients showed more diverse pathologies like fibroid polyps, cervical polyps, leiomyosarcoma and squamous cell carcinoma of the endometrium.

Table VII : Comparative study of histopathological findings

	Cacciatore et al (1994) T=45 %	Present series T=95 %
Atrophic	17.8	21.04
Hormonal effects	31.1	35.73
Endometrial polyp	42.2	23.1
Adenocarcinoma	8.8	3.15
Others	-	16.98

Two patients in our series had endometrial hyperplasia following the use of tamoxifen. An analysis by Baldini et al, (1996) in a group of 63 patients using tamoxifen, showed that in a group of symptomatic patients low risk hyperplasia was present within the first 2 years of treatment and high risk hyperplasia and endometrial carcinoma were diagnosed beyond this period. They also observed a higher incidence of endometrial polyps in this population. They concluded that it would be necessary to have a hysteroscopy before the beginning of therapy with tamoxifen and it has to be repeated once in a year throughout the treatment.

Hysteroscopic surgery in the management of post menopausal bleeding.

Fifty one patients who had benign organic cause were managed by operative hysteroscopy (Table IV) and 26 patients had total hysterectomy with bilateral salpingoophorectomy (Table V). These figures were compared with those reported by Cravello et al, (1996) and Townsend et al, (1993) More number of Western women have accepted conservative hysteroscopic management at one or more sittings compared to Indian women who opted for hysterectomy. (Table VIII).

Table VIII: Comparative study of operative hysteroscopy

	Total no. with benign Organic cause		Total no. of Op. Hysteroscopies		Total no. of Hysterectomies	
	No.	%	No.	%	No.	%
Present series	68/95	71.57	51/95	53.68	26	27.36
Cravello et al (1996)	87/102	85.29	107/102	*104.9	6	5.88
Townsend et al (1993)	95/110	86.36	95/110	86.36	2	1.81

* Some of their patients had repeated procedures.

Conclusion - Bleeding from the genital tract occurring after the menopause is much more sinister than premenopausal bleeding and warrants a thorough investigation. An analysis of the causes of post menopausal bleeding shows that apart from endometrial malignancy which constitutes less than 10%, there are several other causes like polyps, fibroids, endometrial hyperplasia and atrophic endometrium. Even though transvaginal sonography has a good sensitivity and is invaluable in excluding ovarian pathology, it fails to differentiate accurately between polyps, hyperplasia and endometrial carcinoma. Hysteroscopy is more specific as a diagnostic tool in these cases of post menopausal bleeding and the combined use of hysteroscopy and biopsy leads to near 100% accuracy. More than 50% of these patients could be effectively treated by hysteroscopic surgery in the form of polypectomy, resection of fibroids and removal of foreign bodies. Hysteroscopy is found to

be reliable for the diagnosis, and effective for the surgical management of cases of postmenopausal bleeding.

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