Hysteroscopy in the Evaluation of Postmenopausal Bleeding

Thesis

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By

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List of Abbreviations

Abbrev.	Full-term
ACOG	: American College of Obstetricians and Gynecologists
AUB	: Abnormal uterine bleeding
BAK	: Bias-adjusted kappa
CO_2	: Carbon dioxide
COCs	: Combined oral contraceptive
D&C	: Dilatation and curettage
DVT	: Deep venous thrombosis
EEC	: Endometrial echo-complex
FIGO	: International Federation of Gynecology and Obstetrics
FSH	: Follicle stimulating hormone
HRT	: Hormonal replacement therapy
HT	: Hormonal therapy
ISGYP	: International Society of Gynecological Pathologists
ITP	: Immune thrombocytopenic purpar
IUDs	: Intrauterine Devices
IV	: Intravenous
KTP	: Potassium-Titanyl-Phosphate
LH	: Lutenizing hormone
MHT	: Menopausal hormone therapy
MPA	: Medroxy progesterone acetate
NAMS	: North American Menopause Society
Nd YAG	: Neodymium: Yltrium -Aluminium Garnet laser
NIH	: National Institute of Health

NPV : Negative predictive values
OD : Outer diameter
PABAK : Prevalence-adjusted bias-adjusted kappa
PMB : Postmenopausal bleeding
PPV : Positive predictive values
RPL : Recurrent pregnancy loss
RR : Relative risk
SCSH : Saline contrast sonohysterography
SD : Standard deviation
SSRI : Selective serotonin reuptake inhibitors
STRAW : Stages of Reproductive Aging Workshop
TVUS : Transvaginal ultrasound
WHIMS : Women Health Initiative Memory Study
WHO : World health organization

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Introduction

Menopause is permanent cassation of menstruation resulting from loss of ovarian follicular activity. Bleeding that occurs 12 months after the last menstrual period is labeled as postmenopausal bleeding (PMB) ***(Indian Menopause Society Guideline, 2010).***

Postmenopausal bleeding is a common gynecologic complain, accounting for up to 69% of postmenopausal women referred to gynecological outpatient clinics ***(Tahir et al., 1999).***

Approximately 90% of women with endometrial carcinoma report vaginal bleeding as their only complain ***(Giusa-Chiferi et al., 1996).***

Postmenopausal bleeding is a symptom that needs to be investigated thoroughly. At worse, it may signify malignant change, but there are also several less sinister causes ***(Elliott et al., 2003).***

Endometrial cancer occurs most commonly after menopause ***(Kong et al., 2012).***

In 90% of cases, cancer of the endometrium occurs with postmenopausal bleeding ***(Loverro et al., 1999; Elfayomy et al., 2012).***

But just 10-15% of women with postmenopausal bleeding have endometrial carcinoma ***(Elfayomy et al., 2012).***

A definitive diagnosis in postmenopausal bleeding is made by histology. Historically endometrial sample have been obtained by dilatation and curettage now days it is more usual to obtain a sample by dilatation and biopsy ***(Opmeer et al., 2007).***

Dilatation and curettage (D&C) is a blind procedure; it often results in unrepresentative biopsies with a diagnostic failure that varies from 10 to 25% and false negative rates between 2 and 10%. Prior reports have revealed that in 60% of women submitted to curettage less than half of the uterine cavity was sampled with the curette and that the source of bleeding was frequently not diagnosed ***(Sousa et al., 2001).***

The introduction of intrauterine endoscopy has allowed clinician to evaluate an area of the body that was previously accessible only by the procedure of blind dilation and curettage (D&C). many studies have shown hysteroscopy to be superior to D&C, yet its use has yet to be appreciated adequately ***(Al-Kamil, 2001).***

Hysteroscopy is diagnostic gynecological procedure that enable as clinician to visualize the uterine cavity and take endometrial biopsies as required as one of principle investigation of postmenopausal bleeding. Hysteroscopy has integral role in the identification of structure abnormalities of endometrial ***(Nice Guideline, 2007).***

It allows direct view of endometrium and biopsies are also possible ***(Sousn et al., 2001).***

Hysteroscopy permits and accede macroscopic diagnosis of benign lesion and their removal, allowing (see and treat) approach, but histological samples must always be taken ***(Lalchandani et al., 2003).***

It is gold standard to make a histological diagnosis in order to determine the efficacy of hysteroscopy in diagnosing endometrial pathology ***(Elfayomy et al., 2012).***

Aim of the Work

Hypothesis:

- In women with postmenopausal bleeding, hysteroscopy may increase the accuracy of diagnosis of the causes of bleeding.

Question:

- In women with postmenopausal bleeding doses hysteroscopy improve the accuracy for diagnosis of the cause of the bleeding?

Aim:

- This study aims to assess the accuracy of hysteroscopy use in the diagnosis of the causes of bleeding in women with postmenopausal bleeding.

Postmenopause

Menopause is defined by the World Health Organization as the permanent cessation of menstruation resulting from the loss of ovarian follicular activity ***(Gale and Dey, 2009).***

- **Stages of menopause:**

The menopausal transition can span over several years, and often begins with variations in menstrual cycle length in response to rising levels of follicle stimulating hormone (FSH). The mean age of onset of the menopausal transition is 47.5 years and commonly lasts approximately 4 to 5 years ***(Nelson, 2004).***

Stages and nomenclature of the menopausal transition were defined by experts in 2001 at the Stages of Reproductive Aging Workshop (STRAW) The group recognized seven stages of the reproductive aging continuum, and acknowledged that most women do not progress precisely through each stage (Fig.1).

STRAW divided the adult female life into three broad phases: reproductive, the menopausal transition, and post-menopause.

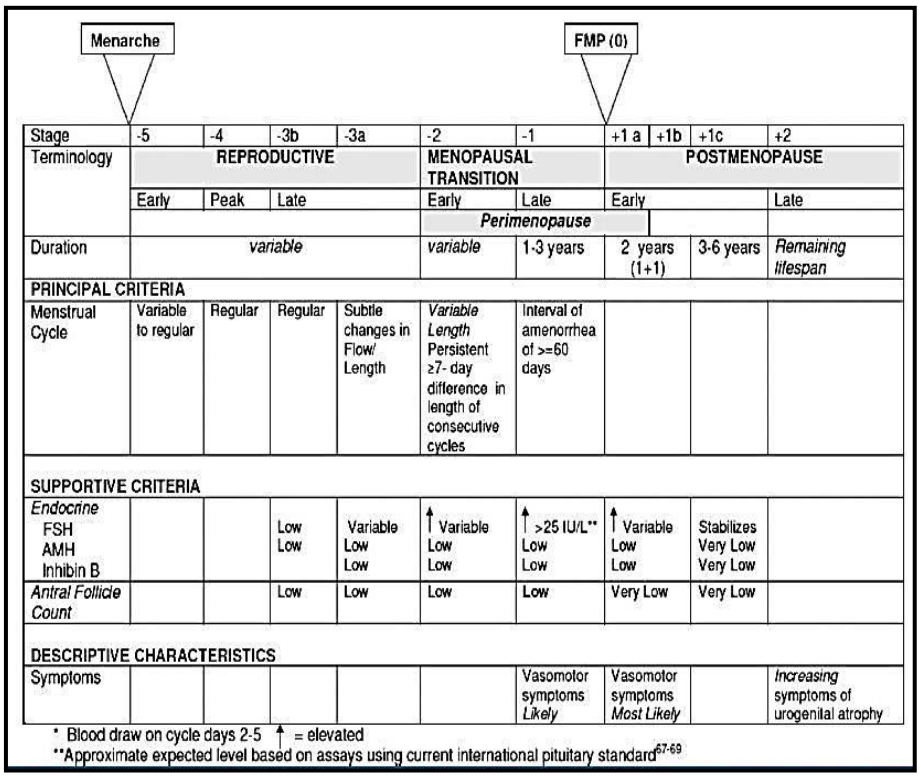

Figure (1): Stages of Reproductive Aging Workshop (STRAW)

These three phases included a total of seven stages centered on the FMP, (Stage 0). The reproductive phase was divided into Stages -5, -4, and -3 corresponding to early, peak, and late, respectively. The menopausal transition phase consisted of Stage -2 (early) and Stage -1 (late), and the postmenopause phase contained Stages +1 (early) and +2 (late). Stage -3 was characterized by regular menstrual cycles and increasing levels of FSH. Stage -2 was characterized by variability in menstrual cycle length and increased levels of FSH. Stage -1 was characterized by onset of skipped cycles or amenorrhea of at least 60 days and continued elevation of FSH.