

# Outpatient Endometrial Sampling As The Sole Primary Method For Assessing Abnormal Uterine Bleeding In Women Over 35 Years In Trinidad

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## Citation

A Kuruvilla, K Sohan, S Ramsewak. *Outpatient Endometrial Sampling As The Sole Primary Method For Assessing Abnormal Uterine Bleeding In Women Over 35 Years In Trinidad*. The Internet Journal of Gynecology and Obstetrics. 2003 Volume 3 Number 1.

## Abstract

Formal dilatation and curettage (D&C) is commonly used in developing countries as the standard and often sole means of assessing abnormal uterine bleeding in women of middle and advanced age. This is counterproductive in countries with limited resources.

102 such women >35 years of age were investigated using endometrial sampling as an outpatient (ESOP) as the sole primary method. An algorithm was developed to allow for further investigation in cases of failed sampling or continuing symptoms.

Histological diagnoses were obtained in 68.6% of patients, and of 32 instances with inadequate or no sample, 22 were endometrial polyps. One report of an inadequate sample proved to be endometrial hyperplasia on further investigation. Since ESOP, assessed alongside other diagnostic modalities, has previously been shown to be as accurate as D&C in detecting endometrial pathology, our experience confirms its role as a valuable and inexpensive means of first line assessment in developing countries.

This policy would obviate the need for further investigation in approximately 70% of these women and only the other 30% would proceed to further methods, thus resulting in cost savings. However, endometrial polyps would be commonly missed.

## INTRODUCTION

A significant proportion of the surgical workload of a gynecological department involves the exclusion of sinister endometrial pathology in middle-aged and older women, who present with abnormal uterine bleeding. The major concerns include endometrial hyperplasia and carcinoma and other abnormalities such as chronic endometritis and endometrial polyps. However, in the majority of cases, no organic pathology will be found.

The traditional method of assessing these women is a dilatation and curettage (D&C), but over the years a number of ancillary procedures have developed. These include: transvaginal ultrasound (TVS), hysteroscopy, outpatient endometrial sampling and hysterosalpingosonography (HSSG). The relative sensitivity and specifications of these procedures, have been addressed by many authors

(1,2,3,4,5,6,7,8,9,10,11,12).

In Trinidad, the favored means of assessing the endometrium continues to be by D&C and it is likely that the same occurs in most developing countries since the methods which require technological equipment and expertise are commonly unavailable, particularly in Third World public hospitals. However, it has been reported that less than half of the endometrial cavity would be curetted in 60% of patients (12) and up to 15% of endometrial carcinomas would be missed (1). Endometrial sampling as an outpatient (ESOP) using a thin flexible plasticised curette (eg. Pipelle, EuroSurgical Ltd, Guildford, UK) has been found to be at least as accurate as formal curettage (5,6,7,8). It is also a well-tolerated procedure and so obviates the need for ward admission, operating theatre time and anesthesia. This procedure is commonly used in conjunction with other modalities such as TVS and hysteroscopy. The aim of this study was to analyze the role of ESOP as the sole first line assessor of abnormal uterine bleeding in women 35 years old and over.

**MATERIALS AND METHODS**

Between January 1999 and December 2002, one hundred and two women eligible for the study, were enlisted because of presentation with abnormal per vaginam bleeding, limited to menorrhagia, intermenstrual or postmenopausal bleeding. Their ages ranged from 35 – 71 years and there was no upper limit.

After history taking and physical examination which included cervical smear, the woman was scheduled for ESOP, providing that an obvious local cause (eg. cervical carcinoma) was absent.

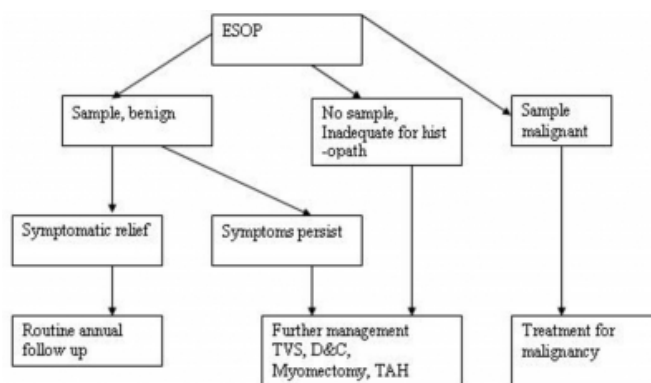
The procedure was performed under aseptic conditions using the endometrial sampler according to manufacturer's instructions. In only a few cases, intrauterine entry required the application of an Allis forceps onto the anterior lip of the cervix. Paracervical block with lignocaine was utilized if deemed necessary. No complications of the procedure were recorded and samples were sent for routine histological analysis.

A management algorithm was proposed as follows: ( Figure 1).

- a) sample obtained, benign pathology and relief of symptoms: routine annual follow-up.
- b) sample obtained, benign pathology but symptoms continue: further management with TVS, D&C, myomectomy or hysterectomy if clinically appropriate.
- c) sample obtained, malignant pathology – management as needed.
- d) inadequate or no sample for histology: further management with TVS, D&C, myomectomy or hysterectomy if clinically appropriate. In cases where TVS showed a thin endometrial lining (<4 mm), no further action was taken.

**Figure 1**

Figure 1: Management algorithm using ESOP as sole first line management of abnormal uterine bleeding in women over 35 years of age



Endometrial ablation and hysteroscopic excision of submucous myomata were not available as modalities of treatment in our hospital.

The study was approved by the Hospital's Ethics Committee

**RESULTS**

Characteristics of the patients studied are listed in Table 1.

**Figure 2**

Table 1: Characteristics of women with abnormal uterine bleeding

Characteristic	Number (%)
Age groups (years)	
35 – 40	12 (11.8)
41 – 49	60 (58.8)
50 +	32 (31.3)
<b>Indications*</b>	
Menorrhagia	52 (50.9)
Intermenstrual bleeding	39 (38.2)
Postmenopausal bleeding	21 (20.6)

\* Some women had more than 1 indication

The majority of women (58.8%) were between 41-49 years of age, with 31.3%, 50 years or over, and 11.8%, aged 35–40 years. Indications for the procedure were menorrhagia 52 (50.9%), intermenstrual bleeding 39 (38.2%) and postmenopausal bleeding 21 (20.6%).

The histological findings and further management are shown in Table 2.

Ten cases of endometrial hyperplasia were detected but there were no instances of endometrial carcinoma.

**Figure 3**

Table 2: Histological outcomes and further management of ESOP samples

Histological results	Number (%)	Further management
Normal	52 (50.9)	Routine follow up if relief, TVS, D&C if not improved.
Endometrial hyperplasia	10 (9.8)	TVS, D&C
Fragments of adenomatous polyp	08 (7.8)	TVS, D&C (TAH in 2)
Inadequate/no sample	32(31.4)	TVS; D&C if endometrium >4mm.

TVS – Transvaginal sonogram  
D&C – Dilatation and curettage  
TAH – Total abdominal hysterectomy

Normal histological findings were noted in 52 women (50.9%) and of these, 39 needed no further management. In 32 cases (31.4%), the sample obtained was inadequate for histological analysis or no sample was obtained. Of these 32, benign endometrial polyps were detected by TVS and D&C in 22 (68.8%). In one case, only blood was recovered on ESOP, but TVS revealed a thickened endometrium (22mm) and D&C retrieved curettings showing atypical endometrial hyperplasia. Overall, 63 women proceeded to TVS, 41 had D&C and 18 women were managed by myomectomy or hysterectomy.

## DISCUSSION

Abnormal uterine bleeding in middle-aged and older women is a common indication for D&C in developing countries and this would be responsible for utilization of scarce resources. Performed alone, D&C is also known to carry a significant false negative rate (1). Our experience with ESOP as the sole primary assessment tool is documented in this paper.

It is inexpensive, simple and easy to perform in the outpatient setting. In 32 cases (31.4%) however, sampling was deemed either inadequate for histopathology or no sample was obtained. The rate is similar to that quoted previously (13). In these cases, follow up with TVS showed a very thin endometrium (< 4mm) in most cases and only 9 proceeded to D&C.

The chance of serious endometrial pathology in the presence of a very thin endometrial lining is highly unlikely. One report of 400 patients (13) detected 1 case of endometrial carcinoma in association with an endometrial thickness of 5 mm.

Naturally, if symptoms were to persist despite a < 4 mm

lining, our next step would be D&C.

In 8 cases, ESOP sampling suggested “fragments of adenomatous polyps” but in 22 cases, polyps were missed. These were however detected by TVS and D&C.

Further assessment by TVS and D&C, is available in most institutions and could be utilized at the second level. In the presence of the facility for operative hysteroscopy, this could be utilized for procedures such as hysteroscopic endometrial ablation and submucous myomectomy.

Since no complications occurred and no serious pathology was missed, our experience suggests that ESOP is a simple, safe and reliable way to undertake first-line assessment of abnormal uterine bleeding in the women described. This is particularly relevant in a setting where more advanced methods of assessment are not readily available.

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Supported by a grant from the Campus Research and  
Publication Fund, The University of the West Indies, St.  
Augustine, Trinidad.

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