

Perspective

The Time Has Come to Quit Relying on a Blind Endometrial Biopsy or Dilation and Curettage to Rule Out Malignant Endometrial Changes

A review of 24,076 patients undergoing surgery for a benign condition found that 347 (1.44%) had a corpus uteri cancer [1]. The study's authors acknowledged they "had limited knowledge on the patient's preoperative conditions," and thus the appropriateness of their preoperative evaluation cannot be determined. Nonetheless, such a high percentage of patients who underwent surgery for benign indications who actually harbored a malignancy is very disturbing.

Abnormal uterine bleeding can be evaluated in several ways, including vaginal ultrasound with or without saline infusion, magnetic resonance imaging, dilation and curettage (D&C), blind endometrial biopsy, or hysteroscopy with directed biopsy. The value of these techniques varies depending on whether the patient is premenopausal, perimenopausal, or postmenopausal.

The American College of Obstetrics and Gynecology (ACOG) Practice Bulletin 159, published in conjunction with the Society of Gynecologic Oncologists, states that "the literature is unclear about when evaluation with imaging is indicated in premenopausal women with abnormal bleeding" [2].

Although the ACOG practice bulletin does not address the transitional stage of perimenopausal bleeding, it does provide specific recommendations for the workup of menopausal patients. In discussing the methods of diagnosing endometrial cancer, the bulletin acknowledges the value of hysteroscopy, but suggests vaginal ultrasound and endometrial biopsy as the first approach. Furthermore, when hysteroscopy is recommended, it is done so in conjunction with a D&C. Visually directed biopsy at the time of hysteroscopy is not mentioned.

It is the purpose of this paper to suggest that hysteroscopy with directed biopsy is the most accurate and cost-effective way to rule out premalignant and malignant endometrial abnormalities.

Vaginal ultrasound is commonly used to screen for endometrial abnormalities. It has been suggested that using

a 3 mm vaginal ultrasound cut off rather than 4 or 5 mm is more appropriate since it has a sensitivity of 98% and a specificity of 35% [3]. Although vaginal ultrasound has value as a screening tool, many patients will not be accurately diagnosed even when the 3-mm cutoff is used. Moreover, those patients needing further evaluation may still be subjected to blind sampling techniques.

A common problem is that ultrasound frequently diagnoses endometrial polyps as a thickened endometrial strip, and in these cases, a blind biopsy technique is inadequate for retrieving tissue for histological evaluation to make an accurate diagnosis. Endometrial polyps may contain premalignant or malignant changes and may be missed by endometrial biopsy [4–7].

The ACOG practice bulletin states that "outpatient endometrial sampling with disposable devices... has become the method of choice for histologic evaluation of the endometrium" [2]. Unfortunately, this approach is of value in ruling out a malignancy or premalignancy conditions only if findings are positive. Disposable devices have been shown to miss endometrial cancers in a high percentage of cases [6–8]. This is because they sample <5% of the uterine cavity [9].

The practice bulletin does suggest a role for hysteroscopy but recommends performing D&C to obtain tissue for pathological examination. A D&C does not sample all the endometrium [10], and even if the abnormal area has been identified by hysteroscopy, a D&C might not retrieve tissue for pathological evaluation even when the tissue has been detached from the uterine wall [11]. A review of the literature concluded that continuous suction curettage provides a better tissue yield than D&C [12].

Hysteroscopy with directed hysteroscopic biopsy of small lesions and/or continuous suction curettage of the whole uterine cavity has been shown to be more accurate than relying on blind tissue retrieval techniques [13].

Many older reports have advocated the use of disposable devices as the most cost-effective screening method to evaluate postmenopausal bleeding; however, this is no longer the case. Newer hysteroscopic instrumentation makes office

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evaluation of abnormal uterine bleeding easy to perform, economically feasible, and more cost-effective. The cost savings of this approach have been well demonstrated [14].

Endometrial biopsy and D&C are blind procedures that are not as accurate in evaluating the endometrium as hysteroscopic techniques. It is time for hysteroscopy to become the standard of care for ruling out endometrial malignancies.

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References

- Desai VB, Wright JD, Schwartz PE, et al. Occult gynecologic cancer in women undergoing hysterectomy or myomectomy for benign indications. *Obstet Gynecol*. 2018;131:642–651.
- American College of Obstetrics and Gynecology. Practice bulletin 149: endometrial cancer. April 2015. *Obstet Gynecol*. 2015;125:1006–1026.
- Timmermans A, Opmeer BC, Khan KS, et al. Endometrial thickness measurement for detecting endometrial cancer in women with postmenopausal bleeding: a systematic review and meta-analysis. *Obstet Gynecol*. 2010;116:160–167.
- Sasaki LMP, Andrade KRC, Figueiredo ACMG, Wanderley MDS, Pereira MG. Factors associated with malignancy in hysteroscopically resected endometrial polyps: a systematic review and meta-analysis. *J Minim Invasive Gynecol*. 2018;25:777–785.
- Guido RS, Kanbour-Shakir A, Rulin MC, Christopherson WA. Pipelle endometrial sampling: sensitivity in the detection of endometrial cancer. *J Reprod Med*. 1995;40:553–555.
- Larson DM, Krawisz BR, Johnson KK, Broste SK. Comparison of the Z-sampler and Novak endometrial biopsy instruments for in-office diagnosis of endometrial cancer. *Gynecol Oncol*. 1994;54:64–67.
- Ferry J, Farnsworth A, Webster M, Wren B. The efficacy of the Pipelle endometrial biopsy in detecting endometrial carcinoma. *Aust N Z J Obstet Gynaecol*. 1993;33:76–78.
- Suh-Burgmann E, Hung YY, Armstrong MA. Complex atypical endometrial hyperplasia: the risk of unrecognized adenocarcinoma and value of preoperative dilation and curettage. *Obstet Gynecol*. 2009;114:523–529.
- Rodriguez GC, Yaqub N, King ME. A comparison of the Pipelle device and the Vabra aspirator as measured by endometrial denudation in hysterectomy specimens: the Pipelle device samples significantly less of the endometrial surface than the Vabra aspirator. *Am J Obstet Gynecol*. 1993;168:55–59.
- Stock RJ, Kanbour A. Prehysterectomy curettage. *Obstet Gynecol*. 1975;45:537–541.
- Englund S, Ingelman-Sundberg A, Westin BH. Hysteroscopy in diagnosis and treatment of uterine bleeding. *Gynaecologia*. 1957;143:217–222.
- Grimes DA. Diagnostic dilation and curettage: a reappraisal. *Am J Obstet Gynecol*. 1982;142:1–6.
- Loffer FD. Hysteroscopy with selective endometrial sampling compared with D&C for abnormal uterine bleeding: the value of a negative hysteroscopic view. *Obstet Gynecol*. 1989;73:16–20.
- Saridogan E, Tilden D, Sykes D, Davis N, Subramanian D. Cost-analysis comparison of outpatient see-and-treat hysteroscopy service with other hysteroscopy service models. *J Minim Invasive Gynecol*. 2010;17:518–525.