



## THE ROLE OF TRANSVAGINAL ULTRASOUND IN POST MENOPAUSAL BLEEDING

Goldstein S (US) [1]

Cancer of the endometrium (EM) is the most common type of gynecologic cancer. Vaginal bleeding is the presenting sign in more than 90% of postmenopausal (PM) patients with EM carcinoma. The majority of patients with postmenopausal vaginal bleeding (PMB) experience bleeding secondary to atrophic changes of the vagina or endometrium. However, depending on age and risk factors 1–14% will have EM cancer. Thus the clinical approach to PMB requires prompt and efficient evaluation to exclude or diagnose carcinoma.

In 1991, after a single study by Stovall et al in women with known carcinoma reported 97.5% accuracy, blind EM sampling became the standard approach to patients with PMB. In a similar study, however, Guido et al performed blind EM sampling in 65 patients with known carcinoma in the operating room just prior to their hysterectomy. They missed 11/65 cancers (sensitivity only 83%) but, upon opening all those uteri, they reported that when the cancers occupied 50% or more of the EM surface the biopsy was 100% accurate.

Since 2012, ACOG, in its Practice Bulletin, states that, "EM biopsy has high overall accuracy in diagnosing EM cancer when an adequate specimen is obtained and when the EM process is global. If the cancer occupies less than 50% of the surface area of EM cavity the cancer can be missed by blind individual biopsy. Therefore, these tests are only an endpoint when they reveal cancer or a typical complex hyperplasia."

Transvaginal ultrasonography (TV U/S) has been explored as an alternative technique to indirectly visualize the EM. The earliest reports comparing TV U/S measurement of EM thickness in women with PMB with EM sampling consistently found that an EM thickness of less than or equal to 4–5 mm in these patients reliably excluded EM cancer. Since that time a number of confirmatory multicenter trials have been completed. Because TV U/S in patients with PMB has an extremely high negative predictive value, it is a reasonable first approach to such patients.

Failure to adequately identify a thin, distinct EM thickness in a PM woman with bleeding should trigger some alternative method of evaluation, like saline infusion sonohysterography (SIS) or hysteroscopy, preferably in an office setting.

An EM measurement greater than 4 mm incidentally discovered in a PM patient without bleeding need not routinely trigger evaluation, although, an individualized assessment based on patient characteristics

[1] New York University School of Medicine

and risk factors is appropriate.