

FROM THE FAMILY PRACTICE INQUIRIES NETWORK

Can transvaginal ultrasound detect endometrial disease among asymptomatic postmenopausal patients?

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■ EVIDENCE-BASED ANSWER

Transvaginal ultrasound should not replace endometrial biopsy for detection of endometrial disease among asymptomatic postmenopausal patients. Endometrial biopsy has been considered a standard for the clinical diagnosis of endometrial disease among asymptomatic patients, but it is invasive, may be uncomfortable, and may not be able to be performed for some patients with cervical stenosis. Ultrasound evaluation is less invasive and more comfortable and can be performed for patients with cervical stenosis. The positive predictive value of ultrasound is not adequate to allow it to replace endometrial biopsy for screening of asymptomatic women (strength of recommendation: **B**, based on cohort studies).

■ EVIDENCE SUMMARY

In a trial of postmenopausal estrogen use, 448 asymptomatic postmenopausal women were monitored with both endometrial biopsy and transvaginal ultrasound.¹ Biopsy detected 11 cases of serious disease. At a threshold of 5 mm for endometrial thickness, ultrasound had a positive predictive value of 9% for detecting any abnormality with 90% sensitivity and 48% specificity. At this threshold, more than half of women evaluated with ultrasound would require endometrial biopsy as well, and only 4% of these patients would have serious disease. This study concludes that transvaginal ultrasound has a poor positive predictive value but a high negative predictive value for detecting serious endometrial disease for this asymptomatic population.

An additional study evaluated 1926 asymptomatic postmenopausal women with transvaginal ultrasound.² Of these, 1833 had endometrial thickness <6 mm and 1750 of this cohort underwent biopsy. Five cases of serious

endometrial abnormality were identified in this group (1 adenocarcinoma and 4 atypical hyperplasia). Specificity in this group was 98%, but sensitivity for accurately detecting an abnormality was low at 17%.

The negative predictive value was greater than 99%. An inadequate number of patients with endometrial thickness >6 mm were biopsied (45%) to allow for accurate calculation of positive predictive value in those with a >6 mm stripe. The study concludes that transvaginal ultrasonography may not be an effective screening procedure for this population.

The relevance of several other studies is affected by small sample size (range, 36–85).³⁻⁶ Other studies did not attempt to biopsy all patients screened with ultrasound.^{7,8}

■ RECOMMENDATIONS FROM OTHERS

The National Cancer Institute states finds the evidence insufficient to recommend any routine screening for endometrial cancer with either endometrial biopsy or transvaginal ultrasound. The American Cancer Society does not recommend routine screening of asymptomatic patients for endometrial cancer. They recommend prompt recognition and evaluation of abnormal uterine bleeding. The US Preventive Services Task Force and American Academy of Family Physicians have not issued recommendations related to endometrial cancer screening.

CLINICAL COMMENTARY

No need to screen postmenopausal women for endometrial disease

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This Clinical Inquiry appears to draw appropriate conclusions to the question as presented. However, the question implies tacit approval of the notion of screening asymptomatic postmenopausal women. As pointed out above, *no* major organization recommends screening of these women. When reviewing a study we must also ask if the original study question is similar to our own clinical question. A critical piece of information regarding this answer is that references 1 and 2 are “nested” studies done within the context of large drug trials originally designed to answer very different questions. These asymptomatic women were being screened as part of the study protocol to ensure drug safety. Any effort on our part to apply this data to our asymptomatic patients should be considered with this significant limitation in mind.

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