Smith-Bindman R, Weiss E, Feldstein V. How thick is too thick? When endometrial thickness should prompt biopsy in postmenopausal women without vaginal bleeding. Ultrasound Obstet Gynecol 2004;24:558–65.

Article

How thick is too thick? When endometrial thickness should prompt biopsy in postmenopausal women without vaginal bleeding, R Smith-Bindman, E Weiss, V Feldstein,Department of Radiology, University of California, San Francisco, CA 94115, USA. **Ultrasound in Obstetrics and Gynecology** (Impact Factor: 3.14). 10/2004; 24(5):558-65. DOI: 10.1002/uog.1704

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ABSTRACT Transvaginal sonography (TVS) is routinely performed as part of a pelvic sonogram in postmenopausal women, and images of the endometrium are frequently obtained. In women without vaginal bleeding, the threshold separating normal from abnormally thickened endometrium is not known. The aim of this study was to determine an endometrial thickness threshold that should prompt biopsy in a postmenopausal woman without vaginal bleeding.

This was a theoretical cohort of postmenopausal women aged 50 years and older who were not receiving hormone therapy. We determined the risk of cancer for a postmenopausal woman with vaginal bleeding when the endometrial thickness measures > 5 mm, and then determined the endometrial thickness in a woman without vaginal bleeding that would be associated with the same risk of cancer. We used published and unpublished data to determine the sensitivity and specificity of TVS, the incidence of endometrial cancer, the percentage of women symptomatic with vaginal bleeding, and the percentage of cancer that occurs in women without vaginal bleeding. Ranges for each estimate were included in a sensitivity analysis to determine the impact of each estimate on the overall results.

In a postmenopausal woman with vaginal bleeding, the risk of cancer is approximately 7.3% if her endometrium is thick (> 5 mm) and < 0.07% if her endometrium is thin (< or = 5 mm). An 11-mm threshold yields a similar separation between those who are at high risk and those who are at low risk for endometrial cancer. In postmenopausal women without vaginal bleeding, the risk of cancer is approximately 6.7% if the endometrium is thick (> 11 mm) and 0.002% if the endometrium is thin (< or = 11 mm). The estimated risk of cancer was sensitive to the percentage of cancer cases that were estimated to occur in women without vaginal bleeding. For the base case we estimated that 15% of cancers occur in women without vaginal bleeding. When we changed the estimate to project that only 5% of cancers occur in women without vaginal bleeding, the projected risk of cancer with a thick measurement was only 2.2%, whereas when we

estimated that 20% of endometrial cancers occur in women without bleeding, the projected risk of cancer with a thick measurement was 8.9%. As a woman's age increases, her risk of cancer increases at each endometrial thickness measurement. For example, using the 11 mm threshold, the risk of cancer associated with a thick endometrium increases from 4.1% at age 50 years to 9.3% at age 79 years. Varying the other estimates used in the decision analysis within plausible ranges had no substantial effect on the results.

In a postmenopausal woman without vaginal bleeding, if the endometrium measures > 11 mm a biopsy should be considered as the risk of cancer is 6.7%, whereas if the endometrium measures < or = 11 mm a biopsy is not needed as the risk of cancer is extremely low.

How thick is too thick? When endometrial thickness should prompt biopsy in postmenopausal women without vaginal bleeding. Available from: http://www.researchgate.net/publication/8327623_How_thick_is_too_thick_When_endometrial_thickness_should_prompt_biopsy_in_postmenopausal_women_without_vaginal_bleeding [accessed Jul 29, 2015].