

**Endometrial thickness measurement with and without fluid contrast ultrasound**

*J. Veldman, T. Van den Bosch, E. Werbrouck, D. Van Schoubroeck, D. Timmerman  
Obstetrics & Gynecology, University Hospitals K.U. Leuven, Leuven, Belgium*

**Aim:** There are few data about endometrial thickness measurement with fluid contrast ultrasound. The threshold value that is correlated to an increased risk of histologic abnormalities might be different for the sum of single-layer measurements at contrast ultrasound in comparison to the double-layer measurement with conventional transvaginal ultrasonography (Ultrasound Obstet Gynecol 2000;16:254-9; Obstet Gynecol 2000;95:95-103). The aim of this study was to compare the ultrasound measurements for endometrial thickness before and after fluid instillation.

**Methods:** Observational study on 843 consecutive patients presenting at the "one stop bleeding clinic" of the University Hospital Leuven. All patients underwent first an unenhanced ultrasonography (UUS): the total (double layer) endometrial thickness (ET) was measured at its thickest part in the sagittal plane. Thereafter the same patients underwent a fluid contrast sonography (CSH) (saline infusion in 402 and gel infusion in 441): both layers were measured and the sum was recorded. The endometrial thicknesses before and after fluid instillation were compared.

**Results:** The mean patients' age was 50.5 year (SD 11.7). The technical failure rate for CSH was 3.1%. The endometrium was not recorded in 9.5% at UUS versus in 2.5% at CSH. The mean ET was 9.4mm (SD 6.7; range 1.1-49) at UUS versus 9.1mm (SD 6.2; range 1.2-78) at CSH. Endometrial thickness was obtained on both UUS and CSH in a total of 730 patients. The correlation coefficient for ET between UUS and CSH was 0.89. In 375 (51.4%) a thicker ET was measured at UUS as compared with CSH, in 338 (46.3%) a thinner.

**Conclusion:** Our data showed a good correlation for endometrial thickness measurement with and without fluid contrast ultrasound. This suggests that the current guidelines for endometrial thickness used for detecting endometrial abnormalities may be applied for CSH.