

Studies:**A Non-Incisional Doppler Guided Transvaginal Approach for Uterine Artery Identification May Lead to a Less Invasive Means to Control Uterine Perfusion**

Presented at the Global Congress of Gynecologic Endoscopy held in conjunction with 31st annual meeting of the American Association of Gynecologic Laparoscopists, Miami, FL, Nov. 2-24, 2002

Précis

A Non-Incisional Doppler Guided Transvaginal Approach for Uterine Artery Identification May Lead to a Less Invasive Means to Control Uterine Perfusion.

ABSTRACT**Study Objective:**

To determine the location and depth of the uterine arteries from the vaginal fornix using a Doppler guided non-incisional transvaginal approach.

Design

Observational study (Canadian Task Force classification II-3)

Setting

All data was obtained at the offices of Women's Health Research, Phoenix, Arizona and West Coast Fertility Centers, Fountain Valley, California.

Intervention

Each participant was placed in the dorsal lithotomy position and a bimanual examination was performed to determine uterine size and position. With a standard bivalve speculum in place, the uterine arteries were located bilaterally using the DWL Multi-Dop B+ System with an 8 Mhz probe (Sippligen, Germany in Toggle Mode. Continuous Doppler mode was used to identify uterine artery location, and pulsed Doppler was used to estimate uterine artery depth from the vaginal fornix.

Measurements

The average uterine size was less than eight weeks, with the largest uterus measuring eighteen weeks gestational size. The right uterine artery could be identified between the eight and eleven o'clock positions, and was most commonly found at the nine o'clock position. The depth of the right uterine artery ranged from four to seventeen millimeters, with the average depth being 9.2mm. The left uterine artery could be identified between the one and four o'clock and was most commonly found at the three o'clock position. The depth of the left uterine artery ranged from four to fifteen millimeters, with the average depth being 8.93mm.

Conclusions

Due to the ease of Doppler assisted identification of the uterine arteries transvaginally, despite differences in parity, uterine size, and position, it can be speculated that access to and occlusion of the uterine arteries with a Doppler guided device might offer an alternative to invasive procedures intended to occlude uterine artery blood flow such as laparoscopic uterine artery occlusion or uterine artery embolization in the treatment of women with symptomatic uterine leiomyomas.