

MEDLINE Abstract

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OBJECTIVE: To examine the prevalence, incidence, persistence, and resolution of ovarian abnormalities using serial transvaginal ultrasonography.

METHODS: A group of 39,337 women in the University of Kentucky Ovarian Cancer Screening Program were monitored with 221,576 baseline and interval transvaginal ultrasonography.

RESULTS: The transvaginal ultrasonogram was normal for first and all subsequent visits for 31,834 participants (80.9%), whereas 6,807 women (17.3%) had transvaginal ultrasonograms interpreted as abnormal and were monitored over 21,588 ultrasonograms. Ovarian cysts were more common in premenopausal (prevalence 34.9%, incidence 15.3%) than in postmenopausal women (prevalence 17.0%, incidence 8.2%). For the group with abnormalities, the initial transvaginal ultrasonogram was abnormal in 46.7% of the cases, of which 63.2% resolved to normal on subsequent ultrasonograms. Of 35,314 cases classified as normal on the first examination, 9.9% were abnormal on subsequent annual examinations. The abnormal findings were classified as follows: unilocular cysts (11.5%), cysts with septations (9.8%), cysts with solid areas (7.1%), and solid masses (1.8%). Many transvaginal ultrasonographic abnormalities were followed to resolution. Surgery was performed on 557 participants for 85 ovarian malignancies and 472 nonmalignancies. Over the duration of the study, the positive predictive value (PPV) increased from 8.1% to 24.7%.

CONCLUSION: Serial ultrasonography has shown that many ovarian abnormalities resolve, even if the initial appearance is complex, solid, or bilateral. Thus, it is advantageous to avoid a single transvaginal ultrasonographic abnormality as the sole trigger for surgery and to take a measured serial approach to reduce false-positive results and increase the PPV.

LEVEL OF EVIDENCE: II.

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