CA125 Plus Ultrasound May Flag Early Ovarian Ca

BY PATRICE WENDLING Chicago Bureau

CHICAGO — Frequent serum CA125 testing in tandem with transvaginal sonography may be an effective screening method to detect ovarian cancer early in women at increased risk of the disease.

When serial CA125 levels were analyzed using the previously established risk of ovarian cancer algorithm (ROCA), the overall specificity was 99.7% and positive predictive value was 13% among 2,343 high-risk women. The prospective pilot study included women with a BRCA mutation, who are known to have a 20%-40% increased lifetime risk of ovarian cancer.

The results are encouraging because no proven strategy exists for this high-risk group, but larger studies are needed to validate the findings, Steven J. Skates, Ph.D., reported at the annual meeting of the American Society of Clinical Oncology.

'Serial CA125 testing essentially establishes a baseline value for each woman that

The study defined high-risk women as those with a **BRCA1** or **BRCA2** mutation or firstor second-degree relatives with a **BRCA** mutation or multiple breast or ovarian cancers.

personalizes the interpretation of each new CA125 result to determine if ultrasound is indicated at a particular time," Dr. Skates said in an interview. "The hope is that the serial approach will increase sensitivity of CA125 testing

without loss of specificity. The ROCA has previously shown greater positive predictive value and sensitivity than a single CA125 test in screening healthy postmenopausal women for ovarian cancer (J. Clin. Oncol. 2005;23:7919-26).

The current study defined high-risk women as those with a BRCA1 or BRCA2 mutation or first- or second-degree relatives with a BRCA mutation or multiple breast or ovarian cancers, or women of Ashkenazi heritage and at least one firstdegree or two second-degree relatives with breast or ovarian cancer. Women with a prior diagnosis of ovarian cancer were excluded.

Participants underwent CA125 testing every 3 months, and the risk of having ovarian cancer was recalculated after each test based on the CA125 profile. Women with a greater than 1% risk were referred to ultrasound, and those with a greater than 10% risk to a gynecologic oncologist.

Between July 2001 and September 2006, a total of 19,549 CA125 tests were performed, totaling 6,284 women-years of screening. The average number of CA125 tests performed was three per year. Of 628 referrals made to ultrasound, 414 were performed, resulting in 38 women (9%) undergoing study-indicated surgeries.

Nine ovarian cancers were identified during screening—three were prevalent (one early stage, two late stage) and six were incident (five early stage, one late stage), reported Dr. Skates, ROCA Screening Study Group, Massachusetts General Hospital Cancer Center, Harvard Medical School, Boston.

Three of the incident carcinomas were found on prophylactic oophorectomy in early stage. The ROCA detected two of the three remaining incident cases in early stage, and three of three prevalent cases. Positive predictive value was 5/38 or 13% and sensitivity was 5/6 or 83%. The sample size was too small to determine sensitivity for incident cases. Overall specificity was excellent for the combined strategy at 99.7%, Dr. Skates said.

The positive predictive value of ROCA was higher at 22% in the study of postmenopausal women, but is acceptable at 13% in a group of high-risk women considering prophylactic oophorectomy after childbearing, Dr. Skates said.

The researchers also evaluated other serum biomarkers, and observed that the HE4 and B7-H4 proteins seemed to confirm CA125 levels.

There was high compliance throughout the study, with 84%, 85%, 85%, and 82% of participants returning within 1 month for the first four tests.

A definitive screening study with more than 30 incident cases and possibly additional biomarkers is needed to define sensitivity for longitudinal ROCA for earlystage ovarian cancer, said Dr. Skates, who received grant support from Fujirebo Diagnostics Inc., a cosponsor of the study with the National Cancer Institute.



Vagifem® is indicated for the treatment of atrophic vaginitis.

IMPORTANT SAFETY INFORMATION

ESTROGENS HAVE BEEN REPORTED TO INCREASE THE RISK OF ENDOMETRIAL CARCINOMA.

Three independent, case-controlled studies have reported an increased risk of endometrial cancer in postmenopausal women exposed to exogenous estrogens for more than one year. This risk was independent of the other known risk factors for endometrial cancer. These studies are further supported by the finding that incident rates of endometrial cancer have increased sharply since 1969 in eight different areas of the United States with population-based cancer-reporting systems, an increase which may be related to the rapidly expanding use of estrogens during the last decade.

The three case-controlled studies reported that the risk of endometrial cancer in estrogen users was about 4.5 to 13.9 times greater than in nonusers. The risk appears to depend on both duration of treatment and on estrogen dose. In view of these findings, when estrogens are used for the treatment of menopausal symptoms, the lowest dose that will control symptoms should be utilized and medication should be discontinued as soon as possible. When prolonged treatment is medically indicated, the patient should be reassessed, on at least a semiannual basis, to determine the need for

Close clinical surveillance of all women taking estrogens is important. In all cases of undiagnosed persistent or reoccurring abnormal vaginal bleeding, adequate diagnostic measures should be undertaken to rule out malignancy. There is no evidence at present that "natural" estrogens are more or less hazardous than "synthetic" estrogens at equi-estrogenic doses.

Other warnings include: induction of malignant neoplasms, gallbladder disease, effects similar to those caused by estrogen-progestogen oral contraceptives (such as thromboembolic disease, hepatic adenoma, elevated blood pressure, worsening of glucose tolerance), hypercalcemia, and rarely, trauma induced by the Vagifem® applicator.

In a placebo-controlled clinical trial, the most commonly reported adverse events included: headache (9%), abdominal pain (7%), upper respiratory tract infection (5%), genital moniliasis (5%), and back pain (7%).

The use of Vagifem® is contraindicated in women who exhibit one or more of the following: known or suspected breast carcinoma, known or suspected estrogen-dependent neoplasia, e.g., endometrial carcinoma, abnormal genital bleeding of unknown etiology, known or suspected pregnancy, porphyria, hypersensitivity to any Va constituents, active thrombophlebitis or thromboembolic disorders, or a past history of thrombophlebitis, thrombosis, or thromboembolic disorders associated with previous estrogen use (except when used in treatment of breast malignancy).