



The Association of Minimally Invasive Gynecologic Surgeons

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Ovarian Cancer Blood Test Appears Promising

Health experts see great promise in an experimental blood test designed to detect ovarian cancer in its early stages. Although the test, which looks for a tumor "fingerprint" of proteins specific to ovarian cancer, is not yet ready for widespread commercial use, it's been hailed as new hope for earlier detection of this potential killer.

When ovarian cancer is caught in the early stages, about 70-80% of patients can be cured. Unfortunately, because of a lack of quality cost-effective screening, the death rate from this cancer has not changed over the last 2 decades (14,000 deaths/year).

This research clearly is needed. It was funded by the National Cancer Institute and CIPHEREN BIOSYSTEMS, which has licensed the test. The study's senior author, Daniel Chan, is director of the Center for Biomarker Discovery at John's Hopkins's Medical Institutions in Baltimore, Md. He's also a consultant to CIPHERGEN, a member of the company's scientific advisory board, and is entitled to sharer of royalties on the test.

Chan and his colleagues screened 195 blood samples from two groups of patients with ovarian cancer, as well as from healthy women and from women with benign ovarian tumors. The samples were analyzed to reveal proteins that were present at unusually high or low levels in the women who had cancer.

This procedure let the researchers identify three proteins or biomarkers associated with ovarian tumors. Chan and his colleagues then looked at the three proteins together and in combination with CA 125, an existing, non-specific biomarker used in ovarian cancer evaluations.

When combined with CA 125, the three protein markers identified cancer 74% of the time in patients with early-stage ovarian cancer, vs. 65% with CA 125 alone. The two tests together identified 83% of all cancers and correctly identified healthy samples 94% of the time, versus 52% of the time for CA 125 alone.

"Ovarian cancer has a relatively low prevalence, about one in 2,500 women, and because of that you need a diagnostic test that is very specific, greater than 99%," Chan explained. "If the test is not that specific, it means we're going to have a significant number of women with false positives going to get invasive procedures. We don't want that to happen."

He believes the test will most likely be used to screen high-risk candidates, such as women with family histories of the disease or women who have gone to a doctor or a hospital with a pelvic mass.

Either way, the test needs additional validation and is probably several years away from commercial use.

Drs. Whitted and Pietro, and the office staff hope you find this current information helpful. Thanks you taking care of your health.