

Screening reveals additional link between endometriosis and ovarian cancer

April 4 2014, by Allison Hydzik

(Medical Xpress)—Some women with endometriosis, a chronic inflammatory disease, are predisposed to ovarian cancer, and a genetic screening might someday help reveal which women are most at risk, according to a University of Pittsburgh Cancer Institute (UPCI) study, in partnership with Magee-Womens Research Institute (MWRI).

Monday at the American Association for Cancer Research (AACR) Annual Meeting 2014, UPCI and MWRI researchers will present the preliminary results of the first comprehensive immune gene profile exploring endometriosis and cancer.

"A small subset of women with endometriosis go on to develop [ovarian cancer](#), but doctors have no clinical way to predict which women," said senior author Anda Vlad, M.D., Ph.D., assistant professor of obstetrics, gynecology and reproductive sciences at MWRI. "If further studies show that the genetic pathway we uncovered is indicative of future cancer development, then doctors will know to more closely monitor certain women and perhaps take active preventative measures, such as immune therapy."

Endometriosis is a painful, often invasive and recurrent condition that happens when the tissue that lines the uterus grows outside of the uterus, causing inflammation. It affects approximately one in 10 women.

By screening tissue samples from [women](#) with benign endometriosis, endometriosis with precancerous lesions and endometriosis-associated

ovarian cancer, Dr. Vlad and her colleagues identified the complement pathway, which refers to a series of protein interactions that trigger an amplified immune response, as the most prominent immune pathway that is activated in both endometriosis and [endometriosis](#)-associated ovarian cancer.

"If, as our study indicates, a problem with the immune system facilitates cancer growth through chronic activation of the complement pathway, then perhaps we can find ways to change that and more effectively prime immune cells to fight early [cancer](#), while controlling the complement pathway," said lead author Swati Maruti Suryawanshi, Ph.D., a post-doctoral research fellow at MWRI.

Provided by University of Pittsburgh Medical Center

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