

Tubal ligation may improve the prognosis of endometrial cancer later in life

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Endometrial cancer (EC) can spread by several routes, including the lymph system, blood vessels, through the uterine wall, as well as through the fallopian tubes into the peritoneal cavity, but the association of transtubal dissemination of EC with cancer stage, histological type, and mortality is unknown. However, according to a study published June 18 in the *JNCI: Journal of the National Cancer Institute*, women who have undergone a tubal ligation (TL) and develop more aggressive types of EC may have lower mortality. The authors postulate that women who have had TL have reduced passage of cancer cells through the fallopian tubes, thus lowering disease stage, which is a strong prognostic factor.

To investigate the possible relationship between TL and EC outcomes, Ashley Felix, Ph.D., of the Hormonal and Reproductive Epidemiology Branch, Division of Cancer Epidemiology and Genetics and Cancer Prevention Fellowship Program, Division of Cancer Prevention, National Cancer Institute, Bethesda, MD, and colleagues analyzed data from the multi-institutional NRG Oncology/Gynecologic Oncology Group 210 trial conducted between September 2003 and December 2011. They assessed the history and outcomes for 4489 women diagnosed with EC, including TL, stage, metastasis, and mortality.

About 28% of the women reported having TL at a median age of 32 years. The researchers found that EC patients who also had TL were less likely to have stage III or IV EC across all subtypes of the disease. They were also less likely to have peritoneal metastasis, even if they had more aggressive EC types (high-grade endometrial or serous carcinoma).



Metastases to the fallopian tubes, ovaries, parametrium, and bladder/bowel were also inversely associated with TL. However, when adjusted for stage, TL was not associated with disease-specific or overall mortality, except for clear cell EC. This suggests that the mortality benefit was related to inhibiting dissemination of <u>cancer</u> cells through the <u>fallopian tubes</u>.

A limitation of the study, Felix et al. note, is lack of information on types of TL procedures, which have changed over time. Newer methods such as mechanical clips or tubal implants may have a different effect from older ones such as partial excision of tubal segments. However, the authors write that "...our study provides evidence that transtubal spread is an important mechanism of metastasis for aggressive histological types of endometrial carcinoma and that this process can be inhibited by TL."

Provided by Oxford University Press

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