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GYNECOLOGICAL CANCER

Endometriosis link to invasive subtypes

Previous studies have shown an association between endometriosis and increased risk of invasive epithelial ovarian cancer; however, "the risk associated with endometriosis might vary according to the [histological] subtype," according to a new study by Pearce *et al.* published in *Lancet Oncology*.

In a pooled anlysis of 13 case-controlled studies from the Ovarian Cancer Association Consortium database, the investigators assessed self-reported endometriosis data from a total of 23,144 women—13,326 controls, 7,911 with invasive ovarian cancer and 1,907 with borderline ovarian cancer. When stratified by age (5-year categories) and ethnic origin (non-Hispanic white, Hispanic white, black, Asian, and other), and adjusted for duration of oral contraceptive use (ranging from 0 to ≥10 years), self-reported history of endometriosis was associated with a significantly increased risk of invasive clear-cell, invasive low-grade serous and invasive endometrioid ovarian cancer subtypes. No association was found between a history of endometriosis and invasive mucinous, invasive high-grade serous, or borderline (both serous and mucinous) ovarian cancer.

The data were consistent among 13 studies and the association remained strong even after women with a diagnosis of endometriosis within 3, 5 or 10 years of their ovarian cancer diagnosis were entered as not having endometriosis, demonstrating the robustness of the study.

Further research is needed to understand the molecular mechanisms involved in the malignant transformation of endometriosis. As Pearce *et al.* write in their paper, "identification of women with endometriosis who are at risk of cancer would provide a basis for increased cancer surveillance of the relevant population and potentially after the treatment of their endometriosis."

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Original article Pearce, C. L. *et al.* Association between endometriosis and risk of histological subtypes of ovarian cancer: a pooled analysis of case-control studies. *Lancet Oncol.* doi:10.1016/S1470-2045(11)70404-1