

Abstract

Objective: To assess the cancer risk in a cohort of women with newly diagnosed endometriosis.

Methods: This retrospective, nationwide, population-based cohort study utilized data from the 10-year claims database of the Korean National Health Insurance from January 2008 to December 2018. Patients diagnosed with endometriosis between 2010 and 2013 were included; those who underwent appendectomy but were not diagnosed with endometriosis during the study period served as controls. No participant was diagnosed with cancer before enrollment. Cancer diagnoses according to the International Classification of Diseases, 10th revision, were compared between the two groups. Cancer occurrence in both groups was identified according to the diagnostic codes for different organ sites.

Results: Altogether, 179,865 patients with endometriosis and 87,408 controls were analyzed, and the incidence rates of cancer were 644.3 and 543.8 per 100,000 person-years, respectively. Patients with endometriosis had a significantly increased overall cancer risk (hazard ratio [HR], 1.34; 95% confidence interval [CI], 1.28-1.40; $p < 0.001$) than controls after adjusting for age, insurance type, and comorbidities. They had significantly increased uterine (HR, 4.59; 95% CI, 3.56-5.91; $p < 0.001$), ovarian (HR, 2.51; 95% CI, 1.99-3.16; $p < 0.001$), cervical (HR, 1.84; 95% CI, 1.49-2.28; $p < 0.001$), breast (HR, 1.44; 95% CI, 1.31-1.58; $p < 0.001$), and thyroid cancer (HR, 1.34; 95% CI, 1.24-1.45; $p < 0.001$) risk. Median age at diagnosis was <50 years for all cancer types.

Conclusions: Endometriosis was associated with an increased cancer risk, specifically uterine, ovarian, cervical, breast, and thyroid cancers, suggesting that effective cancer screening for early detection of malignancies in women should be implemented in those with endometriosis.