ENDOMETRIOSIS AND OVARIAN CANCER: A SYSTEMATIC REVIEW AND META-ANALYSIS

OBJECTIVE: We investigated and compared the risk factors of ovarian cancer in women with endometriosis (group 1) and without endometriosis (group 2).

METHODS: We included the 15 relevant articles between 2010 and 2020. In this meta-analysis, endometriosis-associated ovarian cancer and its clinicopathological features were measured using odd ratio and standard mean deviation with a 95% confidence interval. Heterogeneity was evaluated using Higgins I^2 to select fixed-effect ($I^2 \leq 50\%$) or random effect models ($I^2 > 50\%$), no publication bias was found using funnel plots with Egger's test ($P > 0.05$).

RESULTS: The patients with endometriosis-related ovarian cancer were found to be younger than the second group ($P=0.004$, $I^2=68.1\%$) and the chance of endometriosis-related ovarian cancer was higher in postmenopausal women ($P=0.005$, $I^2=61.8\%$) and in the nulliparous patients ($P=0.066$, $I^2=54.7\%$).Type 1 of ovarian cancer associated with endometriosis was observed to be more prevalent compared with type 2 of this malignancy. ($P=0.000$, $I^2=80.6\%$) Accordingly, the chance of endometrial cancer was higher in the second group, ($P=0.325$, $I^2=14.0\%$) The level of CA125 in the first group was lower than the second group ($P=0.417$, $I^2=0.0\%$).

CONCLUSION: Complete surgery at the end of reproductive age seems to be a good option to prevent endometriosis lesions from becoming malignant.

KEY WORDS: **Endometriosis, Ovarian cancers, CA125 protein**

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