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**NEGATIVE EFFECTS OF HYPERESTROGENISM ON THE**

**REPRODUCTIVE SYSTEM OF WOMEN**

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**Introduction.**Endometriosis is extremely common in developed countries. Obesity is a major health concern and may cause hyperestrogenism. Hormonal replacement, particularly unopposed estrogens after hysterectomy, is becoming popular. Because endometriosis is ectopic endometrium, hyperestrogenism (either endogenous or exogenous) may cause hyperplasia or transformation into cancer.

**Materials and methods.**Patients who had tumors from endometriosis diagnosed from 2006 to 2017 were analyzed retrospectively. Each patient was matched with two control patients (endometriosis without cancer) treated during the same study interval. Clinical and epidemiologic variables were compared to identify risk factors for the development of cancer.

**Results of research.** We identified 31 patients with cancer developing from endometriosis. Fifteen women were obese, 9 had a history of endometriosis, and 9 were taking unopposed estrogen. Endometrioid adenocarcinoma was the most common histologic type (16 patients). When the patients with cancer were compared with controls, no significantly higher risk for the development of cancer was found with prolonged use of unopposed estrogens or with higher body mass index, but a trend was observed. When obesity and use of unopposed estrogens were considered together, the difference was statistically significant.

**Conclusions.** Hyperestrogenism, either endogenous or exogenous, is a significant risk factor for the development of cancer from endometriosis. The prevalences of endometriosis, obesity, and use of hormonal replacement therapy in women in developed countries are increasing, and this trend justifies the assumption that cancer developing in endometriosis might become more common in the future.