Endometriosis - A Cause of Infertility? Statistical Study

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Abstract

Introduction: Endometriosis is a disease that affects between 10 and 15% of women in reproductive age. In Romania, approximately 70% of patients with chronic pelvic pain and 50% of patients with infertility have endometriosis. Endometriosis, an incompletely elucidated inflammatory disease, is defined as: the presence of endometrial tissue outside the uterus and it is associated with subfertility and chronic pelvic pain. The links between this disease and infertility are a much debated topic in the literature today. Once you detect some predictive factors in the occurrence of endometriosis, it could prove useful in early diagnosis and more efficient and personalized management of the disease. *Material and Method:* The aim of the study was to look for a correlation between endometriosis and infertility and to detect the possible existence of predictive factors regarding these two entities. We included in the study all the patients who were hospitalized between 01.01.2019 - 31.12.2019 in the Obstetrics and Gynecology departments I and II of the County Emergency Clinical Hospital "Pius Brînzeu" Timişoara. The main inclusion criterion was the diagnosis of endometriosis. Patient data were collected from observation sheets, provided by the clinic's archive. *Results and Discussion.* A total of 45 patients were diagnosed with endometriosis. In the correlation and regression analysis we observed a week association between the studied variables, which can be attributed to the small number of samples in the study group, especially given the incompletely elucidated multifactorial character of the disease. There are several associations that are worth mentioning. The positive association between the number of pregnancies and the volume of the lesion ($r = 0.22$, $p = 0.2$) can be explained by the association of these two variables independently with the age of the patients. The negative association between the number of pregnancies and the Ca-125 value ($|r| = 0.24$, $p = 0.2$) is interpreted as an increase in Ca-125 is correlated with a low number of pregnancies in a patient. Last but not least, the strongest positive association in our study was between the size of the lesion and the value of Ca-125 ($r = 0.36$, $p = 0.01$) - the larger the size of the lesion, the greater the value of Ca-125 is higher. *Conclusion:* Our group of patients showed that there are clinical and paraclinical links between endometriosis and infertility, but the exact pathophysiology of this link remains unclear and a global approach to the diagnosis and management of infertility in endometriosis it is necessary. So, we can say that although the link between infertility and endometriosis exists, the view today is that infertility in endometriosis is multifactorial.