

ASYMPTOMATIC ENDOMETRIOSIS INCIDENCE IN SURGERY TREATED WOMEN FOR VARIOUS NOSOLOGICAL UNITS – A RETROSPECTIVE, SINGLE CENTER STUDY

Stefan Miladinov Kovachev^{1*}, Elena Petrova Chuprina¹, Alexandra Vladimirova Stoycheva¹, Miladin Stefanov Kovachev², Steliana Toneva Gicova¹ and Anita Krasimirova Ganovska¹

¹Department of General and Oncologic Gynecology – Military Medical Academy, Sofia, Bulgaria.

²Medical University, Sofia, Bulgaria.

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*Corresponding Author

Stefan Miladinov
Kovachev

Department of General and
Oncologic Gynecology –
Military Medical Academy,
Sofia, Bulgaria.

ABSTRACT

Endometriosis is a disease that affects about 170 million women worldwide, more than 10% of whom are of reproductive age. In addition to their standard clinical manifestation (pain and infertility), symptoms may be absent and the diagnosis may be made accidentally during surgery on another occasion. **The aim** of our study was to determine the incidence of asymptomatic histologically established endometriosis in women without complaints who underwent surgery on another occasion. **Material and methods:** The study is retrospective and was conducted for a 7-year period from 2013 until 2019. Included are 5 057 women aged from 26 to 78 years, hospitalized and treated surgically with various nosological units (benign, malignant, inflammatory). **Results:** Of all included patients,

4531 (89.6%) of them had no preoperative data for endometriosis, and 526 (10.4%) women had preoperative data for endometriosis. Asymptomatic endometriosis was found in 243 (4.8%) patients undergoing surgery on another occasion. The main reasons for surgical treatment are divided into precancerous, benign and malignant. The frequency of premalignant conditions as an indication for surgical intervention was 0.3%, that of malignant diseases was 0.6%, and that of benign - 3.9%. **Conclusion:** The presence of asymptomatic endometriosis should be considered and actively sought in the surgical treatment of women for adequate postoperative treatment.

KEYWORDS: Asymptomatic endometriosis, Frequency, Surgical interventions.

INTRODUCTION

Endometriosis is a disease that affects about 170 million women worldwide, more than 10% of whom are of reproductive age.^[1] The most common complaints are dysmenorrhea (40% - 60%), infertility (21% -47%) and pelvic pain (71% -87%).^[2] In addition to their standard clinical manifestation, symptoms may be absent and the diagnosis may be made accidentally during surgery on another occasion.^[2] The main theory of the etiology of this disease was described in 1925, according to which a retrograde passage of menstrual blood is observed during menstruation in the abdominal cavity.^[3,4] A number of other factors also play a role, such as immune dysfunction, genetic predisposition, environmental factors, and lifestyle choices (alcohol and caffeine intake).^[5,6]

The aim of our study was to determine the incidence of asymptomatic histologically established endometriosis in women without complaints who underwent surgery on another occasion.

MATERIAL AND METHODS

The study was retrospective and was conducted at the Department of Gynecology (DOG) – Military Medical Academy, Sofia for a 7-year period from 2013 to 2019 years. In the study were included 5 057 women - aged 26 to 78 years, hospitalized and treated surgically in DOG - MMA with different diseases (benign, malignant, inflammatory). In all cases, as a mandatory preoperative minimum, an anamnesis procedure, gynecological, colposcopic and ultrasound examinations were performed. In many of them, additional imaging and clinical examinations were performed in connection with the main diagnosis, the reason for the surgical intervention. The data was collected from patient's disease history, surgery protocol, histological results and epicrisis of the patients, which are available in the hospital electronic system. All patients underwent surgical (classical or endoscopic) treatment. The pathological examination of the preparations was performed at the Pathology department of the Military Medical Academy. In cases with established endometriosis and preserved ovarian steroidogenesis, postoperative treatment with GnRH agonists was conducted. The main inclusion criteria are lack of anamnestic and clinical data for endometriosis, performed surgery and subsequent pathological verification for endometriosis. Excluding criteria are anamnestic and clinical data for endometriosis, ultrasound data for endometriosis, adnexal cystic tumor formations suspected of endometriosis, previous treatment of endometriosis.

RESULTS

According to the inclusion and exclusion criteria 4531 (89.6%) of all included women lacked preoperative data for endometriosis, and 526 (10.4%) had preoperative data for endometriosis, and their results were excluded from our conclusions.

The distribution of patients with postoperative histologically verified endometriosis by years is shown in Table 1.

Table 1: Distribution of patients without preoperative data for endometriosis by years.

Patients without preoperative evidence of endometriosis n-4531/89.6%	Study period Years					Total
	2013-15	2016	2017	2018	2019	
Patients with surgery n/%	832/16.5	866/17.1	975/19.3	918/18.1	940/18.6	4531/89.6
Women with histologically established postoperative endometriosis n/%	50/0.99	43/0.85	53/1.05	38/0.75	59/1.17	243/4.8

Asymptomatic endometriosis was found in 243 (4.8%) patients during surgery on another occasion. The main reasons for surgical treatment are divided into precancerous, benign and malignant. The incidence of premalignant conditions as an indication for surgical intervention is 0.3%. The incidence of malignancies as an indication for surgical treatment was 0.6% and that of benign was 3.9% (Table 2).

Table 2: Distribution of women with asymptomatic endometriosis by years depending on the indication for surgical treatment.

Women with asymptomatic endometriosis n-243 / 4.8%	Disease types - indications for surgery		
	Precancerous	Malignant	Benign
2015 n-50/0.99%	1/0.01%	6/0.12%	43/0.85%
2016 n-43/0.85%	5/0.09%	4/0.08%	34/0.67%
2017 n-53/ 1.07%	2/0.03%	8/0.15%	43/0.85%
2018 n-38/ 0.75%	5/0.09%	5/0.09%	28/0.55%
2019 n-59/1.17%	3/0.05%	7/0.13%	49/0.96%
Total n/%	16/0.3%	30/ 0.6%	197/3.9%

For the observed period 1549 total hysterectomies, 735 laparoscopies, 583 vaginal hysterectomies, 485 radical hysterectomies were performed (Table 3).

Table 3: Types of surgical interventions by year, performed in patients without preoperative clinical data for endometriosis.

Patients without preoperative evidence of endometriosis n-4531 (89.6%)	Study period - years					Total n
	2013 – 15 n	2016 n	2017 n	2018 n	2019 n	
LHT*	294	311	303	342	299	1549
LHR**	68	79	107	113	118	485
HV***	113	109	124	131	106	583
LSC****	153	141	160	146	135	735
Others	204	226	281	186	282	1179
Total	832	866	975	918	940	4531

* *LHT-total hysterectomy*; ** *LHR-radical hysterectomy*; *** *HV-vaginal hysterectomy*; **** *LSC-laparoscopy*

DISCUSSION

In our study, the incidence of asymptomatic endometriosis in gynecological surgery of women with preoperative diagnosis other than endometriosis 89.6% (n-4531) for the specified period was 4.8% (n-243).

According to the results of a meta-analysis by Parazzini et al. 2020, which reviews 11 studies, the incidence of asymptomatic endometriosis in patients who underwent surgery for benign disease is 33.5%, in women who underwent surgical intervention for infertility - 23.8%, and in women with chronic pelvic pain - 49.7%.^[7]

Yu o et al. conducted a population survey for a 10-year period (from 2006 to 2015) among 1 185 855 women aged 16 to 60.^[8] They investigated the incidence of asymptomatic endometriosis.^[8] Endometriosis was histologically proven in 333,693 women without any complaints.^[8] The remaining 90.8% of women with endometriosis show clinical symptoms.^[8] No symptoms were found in 9.2% of women with endometriosis.^[8]

In a study by Rawson et al. In 1991 year, 86 patients were included who underwent a laparoscopic examination for reasons other than endometriosis.^[9] According to the results, the incidence of asymptomatic endometriosis is 45.3%.^[9]

The incidence of asymptomatic endometriosis in women who underwent surgical (gynecological) treatment found by us is 4.8% and is lower than that found in other similar studies.

CONCLUSIONS

Endometriosis is a chronic disease that is most often characterized by pain and infertility. If left untreated, it can lead to a significant deterioration in the quality of life of patients. The lack of symptoms delays the timely diagnosis and thus the treatment of endometriosis. The presence of asymptomatic endometriosis should be considered and actively sought in the surgical treatment of women for adequate postoperative treatment.

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Authors declare that this is entire own work.

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