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Clinical evaluation of patients with endometriosis treated at a private referral service in Belo Horizonte

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ABSTRACT

Introduction: The clinical spectrum of this endometriosis is wide and the symptoms can vary from minimal to severely debilitating. The combination of symptoms reported during the anamnesis, physical examination signs, and imaging findings can be used to make a presumptive, non-surgical diagnosis of endometriosis. **Objective:** To identify the clinical profile of patients assisted at the endometriosis clinic and relate it to physical examination findings and imaging data. **Method:** This is an observational, retrospective study, in which the data was collected from the charts of patients who were diagnosed with endometriosis in a referral hospital, between January of 2018 and December of 2021. **Results:** The medical records of 232 patients were analyzed, in which the average age was 37 years (DP = 7,59), and only 1 woman was in menopause. Most of interviewees had completed higher education and were married at time of consultation. The main symptoms reported were dysmenorrhea (49%), dyspareunia (38%) and chronic pelvic pain (34%) and the most used treatments were the progesterone pill, combined pill and Mirena IUD. **Conclusion:** The most common symptom was dysmenorrhea and there was 5% significance when comparing the physical examination findings with what was seen mainly on transvaginal ultrasound, specialized ultrasound and magnetic resonance imaging of the pelvis.

Keywords: Endometriosis; Clinical Profile; Symptoms; Risk Factors.

INTRODUCTION

Endometriosis is a benign, hormone-dependent inflammatory disease that mainly affects women during their reproductive years. It is characterized by the presence of endometrial glands and stroma outside the uterine cavity[1]. The lesions are typically found in the pelvis, however, it can occur in various locations, such as the intestines, diaphragm, and urinary tract. Common sites of endometriosis include the ovaries, anterior and posterior cul-de-sac, posterior broad ligaments, uterosacral ligaments, uterus, fallopian tubes, sigmoid colon, appendix, and round ligaments[2].

Several factors associated with an increased risk of endometriosis include prolonged exposure to endogenous estrogen (early menarche or late menopause), nulliparity, and menstrual flow obstruction (e.g., Müllerian

anomalies) [3]. The clinical spectrum is broad, with symptoms ranging from mild to severely debilitating. Estimating the prevalence of endometriosis in the general population is challenging, especially considering that some cases are asymptomatic. It is estimated that approximately 10% of women of reproductive age worldwide have endometriosis, peaking between 25 and 35 years of age[4,5].

Endometriosis, being estrogen-dependent, emerges during a woman's reproductive phase but it manifests at different times, making diagnosis and treatment challenging. Although it is a common non-malignant condition, ectopic endometrial tissue and resulting inflammation can lead to dysmenorrhea, dyspareunia, chronic pain, infertility, and significantly impact women's quality of life. Additional symptoms may include abdominal bloating, deep dyspareunia, intestinal and bladder dysfunction, abnormal uterine bleeding, lower back pain, or chronic fatigue, although these symptoms are less common. [6,7,8]

Physical examination findings in women with endometriosis are diverse and depend on the location and size of the implants. Some suggestive signs include sensitivity during vaginal examination, identification of nodules during palpation of the posterior cul-de-sac and parametrial region, adnexal masses, and decreased uterine mobility[10].

Imaging findings suggestive of pelvic endometriosis include ovarian cysts (endometriomas), nodules of the rectovaginal septum, and bladder nodules. These can be identified during transvaginal ultrasound as well as through magnetic resonance imaging[11].

While histological confirmation provides a definitive diagnosis, the combination of reported symptoms, physical examination signs, and imaging findings can be used to make a presumptive, non-surgical diagnosis of endometriosis. The positive predictive value of these findings is higher when identified by experienced professionals in the care of patients with endometriosis within a specialized service[9,12,13].

Considering the exponential growth in the number of women diagnosed with endometriosis in recent years, the objective of this study is to outline the clinical profile of patients seen at a specialized outpatient clinic from January 2018 to December 2021 by collecting data from digital medical records, in order to correlate this profile with physical examination findings and imaging data.

METHOD

Study Design

This is a retrospective, single-center, cross-sectional study conducted at a reference hospital specializing in the treatment of endometriosis located in Belo Horizonte, MG–Brazil.

Sample

The sample included patients diagnosed with endometriosis seen at the hospital's outpatient clinic from January 2018 to December 2021. Exclusion criteria comprised pregnant patients and those under 18 years old.

Instruments

The data were collected through the analysis of medical records stored in the hospital's electronic information system. Access to the electronic records was restricted to the researchers, and photographing the records was not permitted.

Procedures

Document analysis and data collection took place from September 2022 to January 2023, encompassing information such as consultation dates, patient age, main complaints, symptom progression, parity and mode of delivery, reproductive desires, contraceptive methods used (hormonal or non-hormonal), previous surgeries, imaging exams conducted to detect endo-

metriosis, family history of endometriosis with degree of relationship, and detailed physical examination (if performed). At last, the post-initial consultation management was recorded based on the information in the medical records.

Statistical Analysis

The information was organized in the RedCap platform and transferred to a table after statistical analysis. Categorical variables were presented as absolute and relative frequencies and numerical variables as median (1st quartile–3rd quartile). The associations between categorical variables were evaluated using the Chi-square test and Fisher's test, with a p-value < 0.05.

The Research Ethics Committee, in accordance with Resolution 466/12 of the National Health Council, approved the study (CAAE: 60686322.9.0000.5125).

RESULTS

In this study, the electronic medical records of 232 patients admitted to the outpatient hospital service in Belo Horizonte were evaluated. The average age of the participants was 37 years, with the first quartile being 32 years and the third quartile being 41 years. 74% of them had completed higher education, and 63% reported being married. The average age at menarche for the patients was 12 years, with the first quartile being 12 years and the third quartile being 13 years. The main symptoms reported by the patients were dysmenorrhea (49%), dyspareunia (38%), and chronic pelvic pain (34%). Regarding the progression of symptoms, 41% stated that their symptoms were stable, while 39% reported that they were progressing.

Table 1. Reported symptoms among participants (n=232)

Reported symptoms	Statistics
Absence of symptoms	
Yes	12 (5.2%)
No	220 (95%)
Recurrent miscarriage	
Yes	0
No	232 (100%)
Dysmenorrheia	
Yes	113 (49%)
No	119 (51%)
Painful intercourse	
Yes	89 (38%)
No	143 (62%)
Abdominal distension	
Yes	33 (14%)
No	199 (86%)
Disúria	
Yes	10 (4.3%)
No	222 (96%)
Pain after sexual intercourse	
Yes	6 (2.6%)
No	226 (97%)
Pain when evacuating	
Yes	27 (12%)
No	205 (88%)
Cyclic pain	
Yes	9 (3.9%)
No	223 (96%)
Chronic pelvic pain	
Yes	78 (34%)
No	154 (66%)
Abdominal pain	
Yes	11 (4.7%)
No	221 (95%)
Increased menstrual flow	
Yes	232 (100%)
No	0

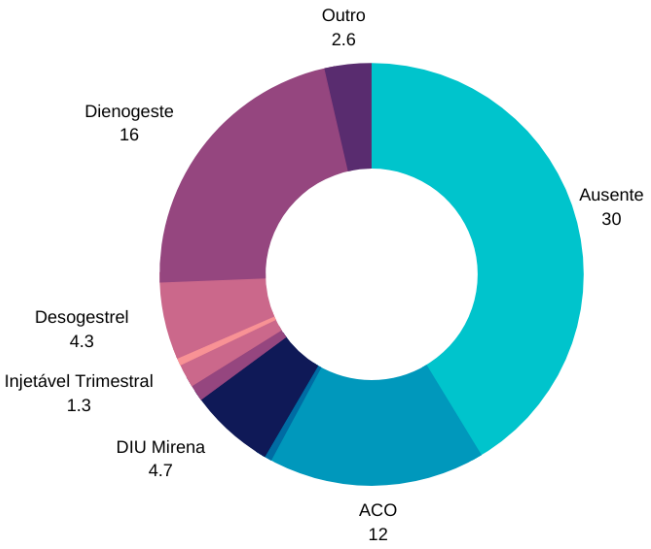
Infertility	
Yes	11 (4.7%)
No	221 (95%)
Hematuria	
Yes	1 (0.4%)
No	231 (100%)
Blood in the stool	
Yes	3 (1.3%)
No	229 (99%)
Abnormal uterine bleeding	
Yes	3 (1.3%)
No	229 (99%)
Rectal tenesmus	
Yes	1 (0.4%)
No	231 (100%)
Vesical tenesmus	
Yes	2 (0.9%)
No	230 (99%)
Urinary urgency	
Yes	0
No	232 (100%)
Other	
Yes	62 (27%)
No	170 (73%)

Among the analyzed patients, 154 (66%) were nulliparous, and 100 women had a reproductive desire at that time. The average number of pregnancies was 0.53; considering only the group of women who became pregnant and gave birth, the average was 1.35 normal deliveries per woman who opted for this delivery method, whereas among women who had a cesarean section, the average was 1.38 per woman. Only 1 patient was in menopause. Regarding the tests requested for investigation, magnetic resonance imaging (44%) and transvaginal ultrasound (19%) were the most commonly performed imaging options. (Table 2)

Table 2. Imaging exams performed (n=232)

Imaging exams performed	Statistics
Pelvic ressonance	
Yes	104 (45%)
No	128 (55%)
Pelvic computadorized tomography	
Yes	0
No	232 (100%)
Transvaginal ultrasound	
Yes	43 (19%)
No	189 (81%)
Ultrasound for endometriosis	
Yes	19 (8.2%)
No	213 (92%)
Other	
Yes	3 (1.3%)
No	229 (99%)
Not included in the medical records	
Yes	17 (7.3%)
No	215 (93%)

Graph 1. Most commonly used hormonal contraceptives, in % (n=232)



DISCUSSION

Clinical Profile

In this study, all patients evaluated had an average age of 37 years. Considering that endometriosis is a hormone-dependent disease and, therefore, age is a determining factor for the development of symptoms, the present study demonstrated that the median age of the patients evaluated is similar to that of other studies, whose aim also aimed to analyze the prevalence of endometriosis in the female population. It is important to highlight that only 1 patient was in menopause–a time when the lesions cease to be fed by ovarian hormones and usually regress[14].

As regards civil status and education, the vast majority had a complete higher education (74%) and were married (63%). The median referring to the menarca of the patients was 12 years. 66% of them had reproductive desire, important information to be considered when developing future conduct. Of the 232 patients evaluated, 154 were nullipares, a condition consistently portrayed as having a strong association with endometriosis[15].

The main symptoms identified were dysmenorrhea (49%), dyspareunia (38%) and chronic pelvic pain (34%)–most of them (41%) developing stably. The complaints and their developments are in accordance with what is commonly described in the current literature, given the possibility of non-surgical treatments that help in preventing the progression of these symptoms.

The most widely used imaging tests for confirmation of diagnosis in patients with suspicion of endometriosis are pelvic resonance and transvaginal ultrasound, data that are compatible with what was performed by patients in this study. The sensitivity and specificity of these methods vary from 80% to 94%, and there is not so far superiority of one method over another[16,17].

Despite the wide applicability of radiological methods in assisting the diagnosis and surgical scheduling of patients with endometriosis, recent studies show that the screening of lesions is often carried out inadequately. Moreover, when done properly, descriptions are often made incomplete or incorrectly, compromising clinical follow-up and the planning of possible surgical procedures[17].

The most common physical examination findings in the study patients were an unremarkable abdomen, normal uterine mobility and painless palpation. The chi-square test and Fisher's exact test showed a significant association (at the 5% level) between the absence of trigger points on physical exam and the findings (or lack thereof) on transvaginal ultrasound and ultrasound for endometriosis. In addition, the association tests showed that there was significance of 5% among women who presented a painful trigger point to the anterior bag bottom with the findings observed in pelvic magnetic resonance imaging and the US specialized for endometriosis.

Current studies recommend the prescription of an intrauterine levonorgestrel releasing system (SIU-LNG) or a subdermal etonogestrel-releasing implant to reduce the pain associated with endometriosis[18]. However, progesterone-based oral contraceptives were the most popular contraceptive option in patients' previous and current hormonal treatments.

It is important to point out that current evidence states that behavioral measures–such as regular physical exercise, reducing daily stressors, and reducing the consumption of fatty foods–can reduce the intensity of endometriosis symptoms[19,20].

CONCLUSION

It is concluded that the prevalence of endometriosis in adult women found in this study is consistent with the prevalence found in other studies conducted in

this same age group. The most prevalent symptoms were dysmenorrhea, dyspareunia and chronic pelvic pain. It is also possible to conclude that there was significance of 5% when comparing the findings of the physical examination with the transvaginal ultrasound, with the specialized ultrasounds for endometriosis and with the magnetic resonance imaging of the pelvis.

At last, it is important to stress that endometriosis is still a pathology to be demystified, due to issues of stigmatization and lack of adequate knowledge about this condition among much of society. Furthermore, the fact that many professionals do not properly investigate the complaints in their histories plus the possible incorrect lauds of the imaging examinations corroborates for a greater underreporting of cases of endometriosis. Good research and accurate diagnosis are essential for more effective endometriosis treatment, which can reduce surgical interventions and improve the quality of life for affected women.

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THE AUTHORS DECLARE THAT THERE IS NO CONFLICT OF INTERESTS IN RELATION TO THIS ARTICLE.