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RESEARCH ARTICLE

Characteristics and Outcomes of Endometriosis at Dr. M. Djamil Padang General Hospital in 2023

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Abstract

Background. *Endometriosis stands as a prevalent benign gynecological condition. It involves the growth of tissue resembling the endometrium outside the uterus, typically impacting the ovaries and peritoneum. Symptoms commonly include premenstrual discomfort and dysmenorrhea.*

Objective. *Knowing the characteristics and outcomes of endometriosis at Dr. M. Djamil Padang General Hospital for the 2023 period.*

Method. *This study is descriptive research aimed at identifying the characteristics of endometriosis among patients at Dr. M. Djamil Padang General Hospital. Conducted in 2023, the study population initially consisted of 129 endometriosis patients. One year later, follow-up was conducted with 73 patients to assess recurrence.*

Result. *There were more patients of reproductive age (97.7%, totaling 126 individuals) than perimenopausal age. The most common complaints reported by patients seeking treatment were dysmenorrhea (81.4%) and non-menstrual abdominal pain (7.8%). The majority of patients were nulliparous (87.6%), followed by multiparous (7%). In terms of BMI categories, most subjects were classified as normal weight (38%) or obese class I (19.4%). Endometriosis lesions were predominantly located in the internal pelvis, particularly in the ovaries (58.1%). Among patients experiencing infertility, the duration was often ≥5 years (31.8%). Nearly all patients received a three-month course of leuprolide acetate injections (97.3%), with additional therapy involving dienogest tablets for three months in 38.4% of cases. Recurrence of symptoms occurred in only 6.8% of patients, while 6.8% of patients became pregnant following treatment.*

Conclusion. *This study concludes that the incidence of endometriosis is high in women of reproductive age. Providing good education about endometriosis is important in order to reduce the delay in diagnosis of this disease so that it can be treated when the stadium was still mild.*

Keywords: *characteristics, outcomes, endometriosis*

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INTRODUCTION

Endometriosis is one of the most common benign gynecological diseases. Endometriosis is a female reproductive system disorder where the endometrium-like tissue develops outside of the uterus; it usually affects the ovaries and peritoneum, causing premenstrual discomfort and dysmenorrhea. This disease often experiences delays in diagnosis, causing significant disruption to the sufferer's quality of life. This disease occurs in 6-10% of women in the fertile period, but the exact incidence rate is not known because diagnosis of this disease must be done through laparoscopy which causes delays in diagnosis for years. As many as 50-60% of women who suffer from pelvic pain and 50% of women who experience infertility suffer from endometriosis. Approximately 2/3 of adult women with chronic acyclic pelvic pain have endometriosis found by laparoscopy.[1,2,3]

Research conducted at Dr. M. Djamil Padang Generela Hospital found that 46.1% of patients came with infertility as the main complaint and 61.7% of patients had never been pregnant or given birth.[4,5]

RESULT

Based on research conducted on 129 sample people, the following description of the characteristics of endometriosis was obtained:

Table 1. Characteristic and outcomes of Endometriosis in 2023

Variable	f	%
Age		
Productive Age (15-44)	126	97.7%
Perimenopasue Age (45-54)	3	2.3%
Chief Complaint		
Dismenore	105	81.4%
Vaginal Bleeding	4	3.1%
Menstruation is abundant and long	2	1.6%
Abdominal pain outside of menstruation	10	7.8%
Swelling of stomach	8	6.2%
Marital Status		
Marry	111	86%
Not married yet	18	14%
Parity		
Nullipara	113	87.6%

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Variable	f	%
Primipara	7	5.4%
Multipara	9	7%
Long Time Infertility		
1-2 years	27	20.9%
3-4 years	20	15.5%
≥ 5 years	41	31.8%
Married < 1 year	7	5.4%
Not married yet	18	14%
Already have children	16	12.4%
BMI		
Underweight	20	15.5%
Normal	49	38%
Overweight	19	14.7%
Class I Obesity	25	19.4%
Class II Obesity	16	12.4%
Anatomic Loacation		
Ovaries	75	58.1%
Uterus	9	7%
Fallopian Tubes	4	3.1%
Uterus + Ovaries	33	25.6%
Ovaries + Fallopian Tubes	6	4.7%
Uterus + Ovaries + Fallopian Tubes	2	1.6%
Operation Action		
Laparatomy	52	40.3%
Laparoscopy	77	59.7%
3 Month Leuprolide Acetate Injection Therapy		
Yes	71	97.3%
No	2	2.7%
3 Month Additional Dienogest Tablet Therapy		
Yes	28	38.4%
No	45	61.6%
Changes in the Degree of Pain After Therapy		
No more pain	45	61.6%
Reduce	12	16.4%
It decreases and then appears again	11	15.1%

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Variable	f	%
Not Reduced	4	5.5%
There were no previous complaints of pain	1	1.4%
Disease Return		
Yes	5	6.8%
No	68	93.2%
Pregnant After Treatment		
Already	5	6.8%
Not yet	68	93.2%

Based on Table 1, it was found that there were more patients of reproductive age than perimenopausal age, namely 126 people (97.7%), the main complaints most often felt by patients when seeking treatment were dysmenorrhea (81.4%) and abdominal pain outside of menstruation (7, 8%), the patient's parity status was mostly nullipara (87.6%) followed by multipara (7%). subjects' bmi categories were mostly found to be normal weight (38%) and obesity class I (19.4%), the anatomical location of endometriosis lesions was found mostly in the internal pelvis, especially in the ovaries (58.1%). patients who experienced infertility were found to have experienced infertility for ≥5 years (31.8%), the majority of patients were also given leuprolide acetate injection therapy for 3 months (97.3%), patients were also given. month additional dienogest tablet therapy 3 months (38.4%), and only 6.8% of patients experienced a recurrence and 6.8% of patients became pregnant after therapy

DISCUSSION

Endometriosis is more common in women of reproductive age. The most widely recognized explanation of endometriosis is that endometrial tissue is implanted in the peritoneal cavity by retrograde menstruation. The increased prevalence of endometriosis in women of reproductive age is underpinned by the theory of lesion formation. According to the theory of retrograde menstruation and implantation, menstrual blood can reflux into the peritoneal cavity. While this occurs in about 90% of women, active eutopic endometrial tissue and abnormalities in immune function support this process. Additionally, excess estrogen allows cells to survive and adhere to the peritoneal wall, leading to the development of endometriosis implants.[6,7]

In this study, it was found that the most common complaint was dysmenorrhea. Based on research conducted by Ozkan, et.al, dysmenorrhea and related symptoms such as pelvic pain, painful urination, and pain during bowel movements are hallmark indicators of endometriosis. The pain associated with this condition is triggered by changes in peritoneal fluid that activate or sensitize peripheral nerves. Neuroangiogenesis, which surrounds many endometriosis implants, can further contribute to the onset of pain. Additionally, dichotomous nerves—those that innervate two different tissues—can cause pain in multiple pelvic organs simultaneously, leading to gastrointestinal and urinary symptoms. Pain may also induce alterations in the central nervous system, resulting in central sensitization, which can sustain pain even after treatment.[8,9]

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In this study we found was the incidence of endometriosis is most common in nulliparas. Many case and epidemiological studies have found that increasing parity is associated with a reduced risk of endometriosis. Based on research conducted by Xu B. et.al, this happens because pregnancy can reduce the length of time a woman is exposed to menstrual fluid, permanent dilation that occurs due to vaginal birth also reduces the possibility of menstrual backflow, and decidual reactions due to high hormone levels during pregnancy also reduce the adhesion and growth of endometriosis implants on the surface of the pelvis and ovaries.[10,11]

The results of this study endometriosis was found almost in normoweight patiens, this statement is not in accordance with research conducted by Parazzini, et.al, which states that endometriosis sufferers tend to have a lower BMI and are less likely to be obese than the control population, however, this inverse relationship between endometriosis and BMI may be weak and has the potential for bias due to a more difficult diagnosis in overweight women, increased weight gain due to pregnancy, and loss of appetite due to symptoms of illness.[12,13]

In this study, based on the anatomical location, endometriosis is most commonly found in the ovaries. Endometriosis lesions can appear in various pelvic locations simultaneously due to the presence of multiple implants in most patients. The high incidence of these implants in the internal pelvis is linked to prolonged exposure to retrograde menstruation. However, other factors like coelomic metaplasia or the spread via blood or lymphatic vessels can also lead to their formation. Endometriosis implants can extend beyond the pelvis, reaching gynecological sites such as the vulva, vagina, and cervix, as well as non-gynecological sites like the intestines, appendix, lungs, and skin, facilitated by the dissemination of active endometrial cells through these vessels.[14,15]

A total of 71 patients were given hormonal therapy by administering leuprolide acetate injections for three months to relieve symptoms. The use of leuprolide acetate depot in combination with norethindrone acetate 5 mg alone, or with norethindrone acetate and conjugated equine estrogens 0.625 mg, provides effective suppression of pelvic pain symptoms associated with endometriosis while protecting against bone loss.[16,17]

A total of 28 patients were given dienogest tablet therapy for three months. Based on Saglik et.al study, they can conclude that dienogest, which is a new generation of progestin, is an effective agent in the treatment of endometriomas in its ability to alleviate endometriosis-related dysmenorrhea and dyspareunia and in reducing the size of the endometrioma.[18,19]

Infertility is defined as the inability of a couple to achieve pregnancy after one year of regular, unprotected sexual intercourse. According to Moini et al. (2013), the duration of infertility can serve as a predictive factor for the severity of endometriosis. On average, the monthly fertility rate for women with endometriosis tends to be lower compared to women without the condition, thus linking endometriosis with lower birth rates. The duration of infertility inversely affects the likelihood of achieving pregnancy.[20,21]

There are several patients who complain that their symptoms return some time after completing therapy at Dr. M. Djamil Padang General Hospital, especially symptoms such as dysmenorrhoea, and many of the patients who experienced improvement in pain no longer had menstruation because their uterus had been removed.

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Even if surgery gives satisfactory results, there is still a possibility of recurrence of the disease and symptoms afterwards, but the appearance of symptoms does not always indicate a recurrence of the disease. Therefore, medical therapy after surgery is crucial to limit the possibility of recurrence.[16] According to Vercellini, if surgical therapy is not followed by adjuvant therapy in the form of medication, the recurrence rate of symptoms and disease will be high, up to 50% at follow-up after 5 years. Repeat surgery must be considered carefully because it can be detrimental to the patient's fertility. If having children is no longer a priority, then definitive therapy such as hysterectomy can be carried out.[20,21]

Endometriosis lesions are most frequently encountered in the following regions like fallopian tubes, uterus outer surface, ovaries, and the ligaments which surround the uterus. Lesions from endometriosis can range in size and frequently take the form of nodules or cysts. The majority of them are blue, black, and brown in color. They can, however, sometimes occasionally be white, red, or transparent.[11] Infertile women with minor or mild endometriosis have had the condition detected more frequently during in vitro fertilization (IVF) and embryo transfer (ET) cycles than those with moderate or severe endometriosis.[12] With a diagnostic age of 28 years, endometriosis predominantly affects women who are of reproductive age, which may be understood by the estrogenic milieu, which is strongly implicated in its genesis. Extrauterine endometrial cells on laparoscopy are generally enough for histologic confirmation. Cystic endometriomas might be reliably recognized utilizing transvaginal ultrasonography, while more modest endometrial implants are not detected.[22,23]

Infertility and severe pelvic discomfort are the two major clinical risk factors for endometriosis.[16] The etiology of infertility in women with minor or mild endometriosis is less understood. However, it might be linked to a greater prevalence of malformed oocytes, faulty embryos, or unsuccessful implantation. According to several studies, tall women with low Body Mass Index (BMI) appear at a greater risk of developing endometriosis because they have short menstrual cycles, are more likely to have cervical canalization problems, and decreased germ cell endowment.10 Endometriosis has also been found to be less common among women who have been pregnant. This might be owing to pregnancy's protective impact, or it could be due to endometriosis patients lower fertility, as endometriosis risk is inversely associated with the number of term pregnancies.[24,25]

CONCLUSION

This study concludes that the incidence of endometriosis is high in women of reproductive age. Providing good education about endometriosis is important in order to reduce the delay in diagnosis of this disease so that it can be treated when the stadium was still mild.

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