CHAPTER

4

“Kissing Ovaries” and deep endometriosis: Case report with surgical outcome

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ABSTRACT
Endometriosis is a chronic gynecological disease that affects about 2 to 10% of women of reproductive age (Barbara, Facchin, Buggio, et al., 2017; Hudson et al., 2016). Due to the variety and severity of symptoms, endometriosis has harmful physical, psychological, social, sexual, and professional consequences (Friedl et al., 2015; Hämmerli et al., 2018; Roomaney & Kagee, 2016).

Keywords: kissing ovaries, endometriosis, deep endometriosis, endometriosis surgery.

1 INTRODUCTION

The body of the uterus is formed by 3 layers: perimetrium, myometrium and endometrium. The inner mucous layer, called the endometrium, is attached to the underlying myometrium, and undergoes changes at each stage of the menstrual cycle. [1] The presence of tissue that resembles the endometrial gland or stroma, which is found outside the uterus, is defined as endometriosis. It is a benign, chronic gynecological disease that is related to estrogen-dependent and is caused by several factors. It mainly affects women of reproductive age. It can be divided into three subtypes: peritoneal, ovarian, and deep endometriosis; these denominations referring to the respective sites of implantation of the endometrial tissue. More specifically, deep endometriosis is defined as a lesion that reaches the retroperitoneal space or other pelvic organs, with a depth greater than or equal to 5 mm.[3] Endometriosis presents in most cases with symptoms such as dysmenorrhea, chronic pelvic pain, dyspareunia, changes of the intestinal and urinary habit, in addition to infertility. The physical examination complements the clinic with changes to the specular examination and touch, especially if performed during the menstrual period. The gold standard diagnosis is laparoscopy, and the treatment is individualized due to the great complexity of the disease. The finding of “kissing ovaries", due to the union of the ovaries in the uterine region or in the rectiser recess, has a strong association with endometriosis, being a marker of disease severity, requiring a thorough examination in the search for foci of endometriosis profound. [4]

2 OBJECTIVE

The objective of this study is to report a case of deep endometriosis diagnosed and treated in the service of Santa Casa de Ribeirão Preto/SP, as well as to discuss the various forms of treatment.

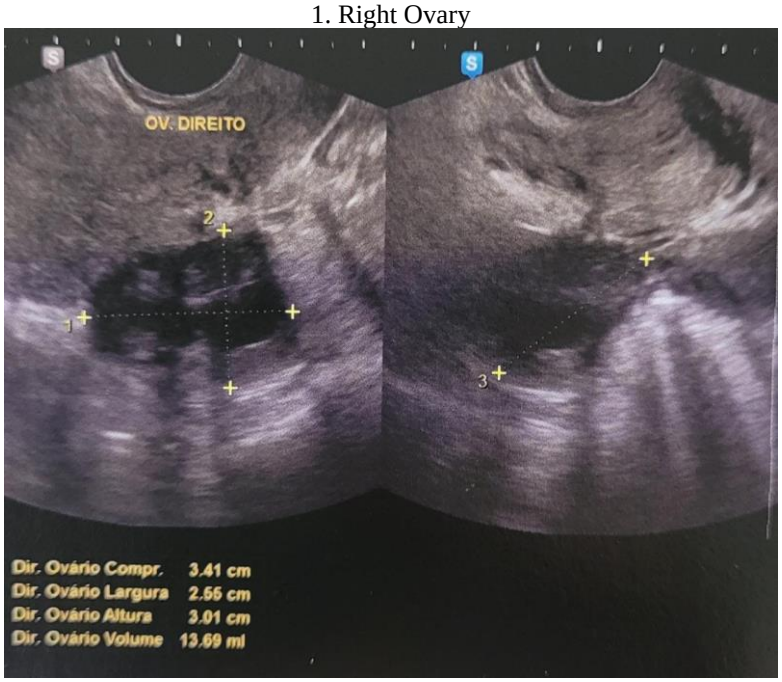
3 CASE REPORT

A.P.V.S, 26 YEARS old, born and coming from Jardinópolis-SP, menarche at 9 years old, sexarche at 16 years old, G1P1A0C1 for 6 years, with no history of infertility. Complaint of dysmenorrhea associated with abdominal pain in colic for approximately 9 years, with progressive worsening, generalized, so that it was not possible to locate the pain because, according to the patient "it hurt all at the same time". I was in follow-up since March / 2019 with several professionals, without improvement of the picture. The sites of greatest intensity were in the hypogastric region and lumbar region, which intensified significantly in the menstrual period. She used gestodene 75 mcg ethinylestradiol 30mcg, orally, without pause. He had occasional leaks and exacerbation of symptoms in these episodes. Proposal for insertion of levonorgestrel-releasing intrauterine system (Mirena(R)) in June/2019, without contain the progression of pain complaints. Dyspareunia of progressive worsening and decreased response of sexual desire. In October/2019, he started with hematochezia, looking again for the service. She was in good general condition, flushed, hydrated, anicteric and acyanotic.

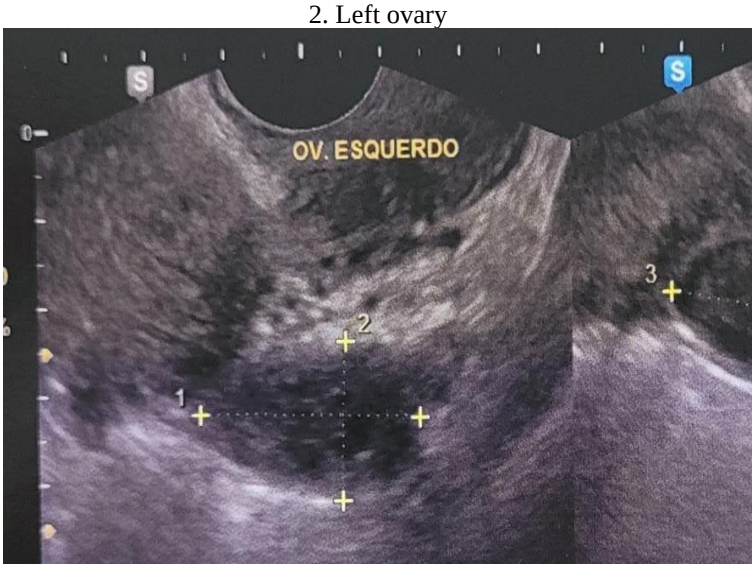
On physical examination, the patient presented vulva without lesions, normal pilification and decreased trophism. Speculate: visualized cervix, with friable lesion around the external orifice of the cervix, scarce physiological secretion. Vaginal touch: severe pain onmobilization of the cervix, non-palpable appendages, and posterior sac bottom painful to the touch, without noticeable nodulations.

The first exam I brought to the consultation was 04/09/2019, transvaginal ultrasound, which showed: uterus in anteversoflexion, centered, with regular contours and heterogeneous myometrium without characterizing nodules. Endometrium is regular, with a thickness of 4.0 mm. Colo with usual appearance, measuring 3.5cm. The measurement of the uterus does not include the measurement of the cervix. Dimensions 4.9 x 3.8 x 4.9 cm, volume 48.5cm3. Right ovary: retrouterino, vol 13.7cm3, dimensions 3.4 x 2.6 x 3.0 cm. It contains rounded image, with regular walls, with homogeneous content, frosted glass debris, without luxury at Doppler, measuring 15x8mm. Left ovary: rectrouterino 2.8 x 1.8 x 2.7 cm, volume 7.0cm3. Ovaries fixed to the uterus in posterior wall, without mobility, of "kissing oaries" aspect. Douglas bag bottom free. HD: right ovarian image may correspondto endometrioma.

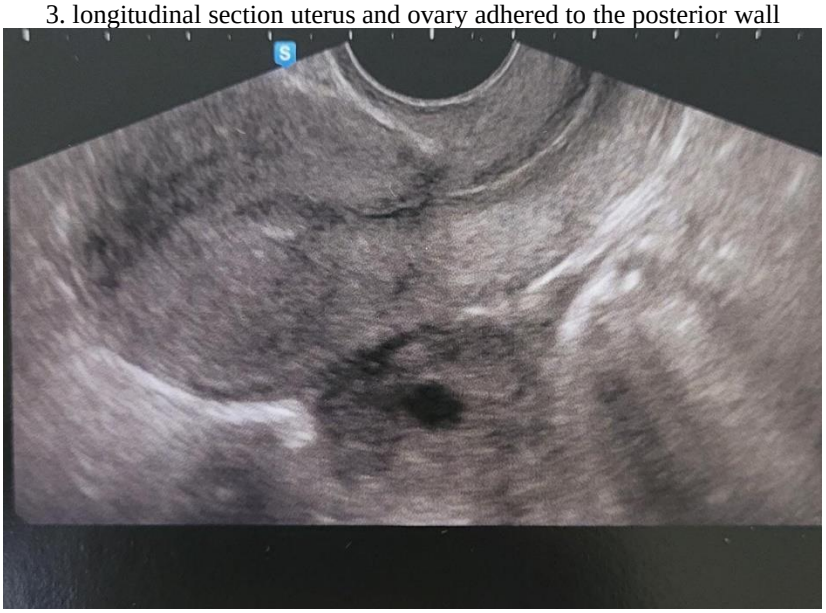
1. Right Ovary



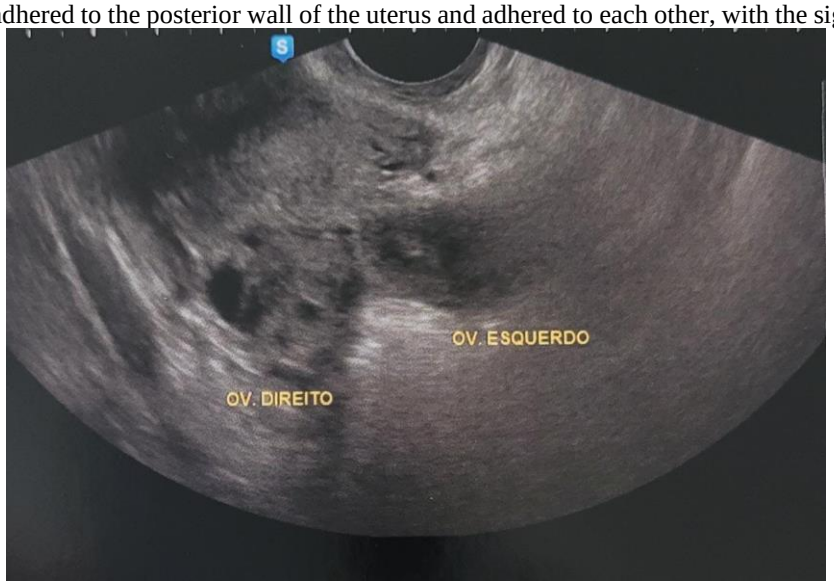
2. Left ovary



3. longitudinal section uterus and ovary adhered to the posterior wall



4. Ovaries adhered to the posterior wall of the uterus and adhered to each other, with the sign "kissing ovaries".



After this examination, Mirena was inserted in June/2019 and a new examination was requested to verify the positioning.

Transvaginal ultrasonography was performed on 08/01/2019, which showed uterus in anteversoflexion, volume 66 cm 3, heterogeneous myometrial texture, body with reduced mobility in relation to the intestinal image described below. SIU in usual position. Ovaries adhered to the uterus in "kissing ovaries", retro uterine, with a volume of 15 cm^3 (right) and 11 cm^3 (left), respectively. In a rectosigmoid serous, an irregular hypoechoic image of 2.2x0.7 x1.3 cm was observed, 11 cm away from the anal border, adhered to the posterior wall of the uterus and left ovary. Endometriosis deep in the intestines, pelvic adhesions affecting both ovaries.

Image 1: Left ovary (01/08/2019) increased dimensions, containing simple cyst.

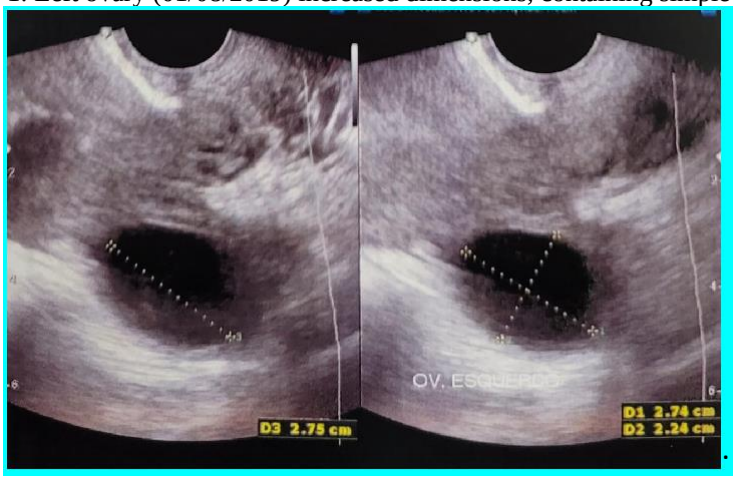
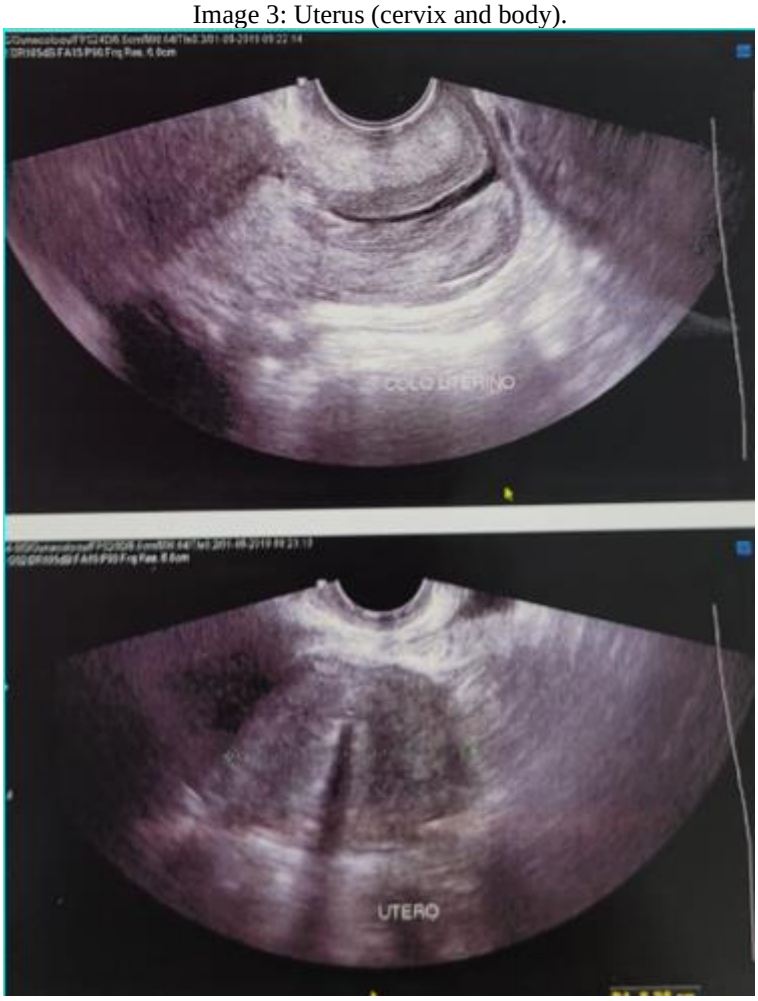


Image 2: Right ovary adhered to posterior uterine wall, containing nodular oval image with thin debris inside, without flow at Doppler, measuring 1.9x1.8, suggestive of endometrioma 01/08/2019)

Image 3: Uterus (cervix and body).



With worsening of pain complaints, in 60 days another transvaginal ultrasound was performed, which showed a fixed right ovary, with a rounded image inside, ground-glass aspect, total volume of 33.2cm³, suggesting a hemorrhagic cyst or endometrioma.

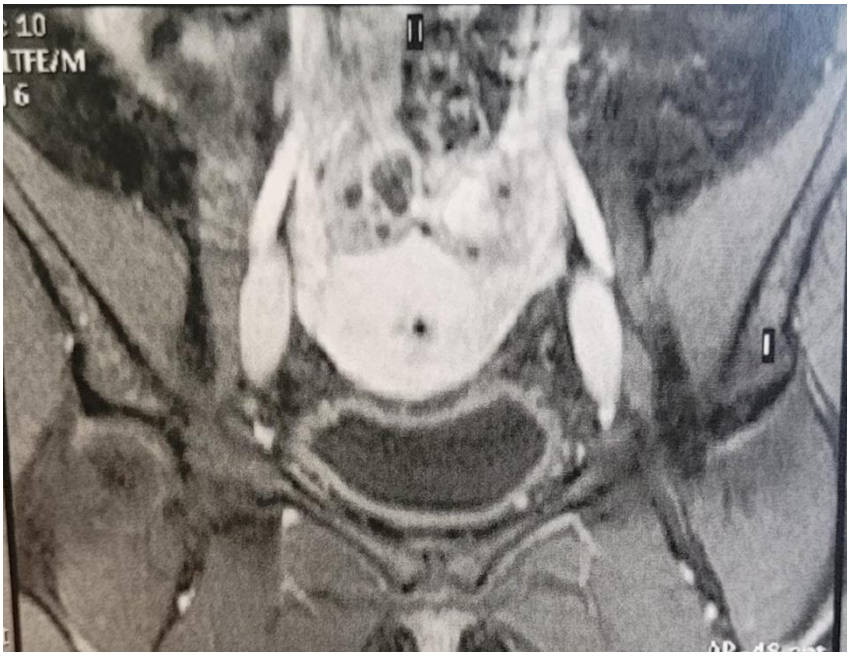
Image 5: Uterus in fashion cut longitudinal (06/12/2019)

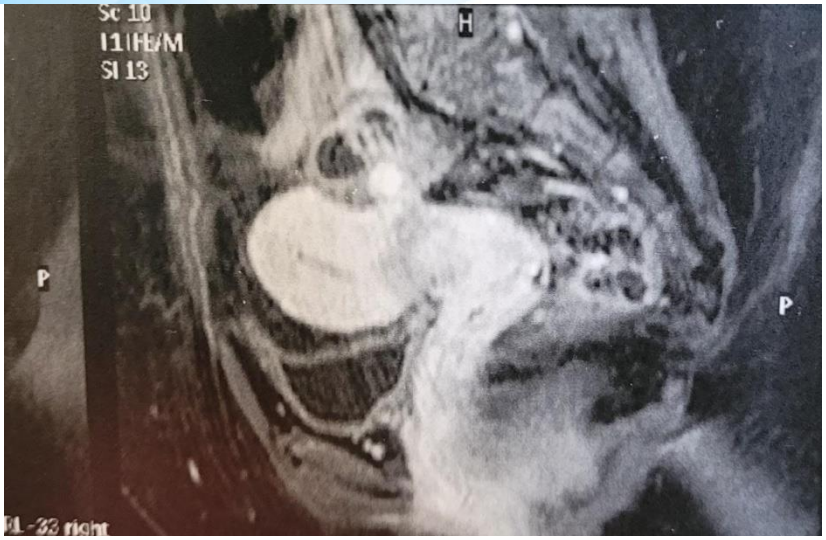
In view of the exposure and worsening of hematochezia episodes, a rapid evolution of deep endometriosis and severe pain was observed, without any stabilization to the use of levonorgestrel-

releasing intrauterine system. He mentioned that he was having difficulty climbing the flight of stairs, necessary in his workplace, and it was necessary to modify the building in which he worked autonomously.

In December/2019 there was the first consultation with our team, which requested magnetic resonance imaging for mapping of ureteral and intestinal lesions, since the findings of endometrioma and "kissing ovaries" confirmed endometriosis, but there was no result with levonorgestrel released by the SIU. Prescribed dienogeste 2mg, 1 cp orally daily, continuous use and there would be return with the imaging examination.

She underwent magnetic resonance imaging of the pelvis in January/2020, which showed: meioverse uterus, with normal shape and contours. The myometrium has normal signal intensity. Regular and well-defined endometrium, with a well-positioned IUD. Uterine cervix without changes. Vagina of usual appearance. Ovaries located in the posterior region of the uterus, of increased dimensions, with small opacities spontaneously hyperintense on T1- and T2-weighted sequences inside the ovaries, measuring about 1.5 x 1.0 cm on the right and 1.6 x 1.2 cm on the left, with hypointense material in all sequences, compatible with endometriomas, promoting union of the ovaries in retrouterine region. Small amount of free fluid to the ovaries. Straight with no changes. Sigmoid with slight thickening of its wall, near the region of the ovaries, which may suggest involvement by endometriosis. Lumbar spondylosis.

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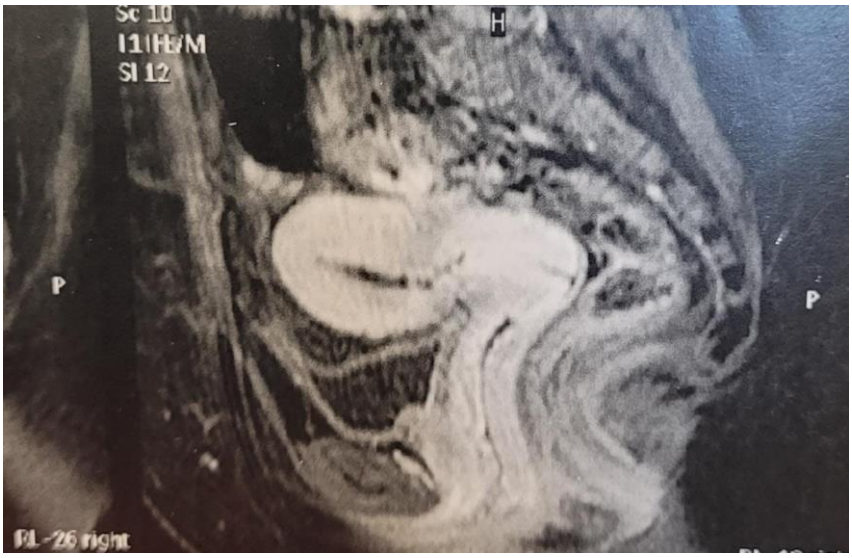
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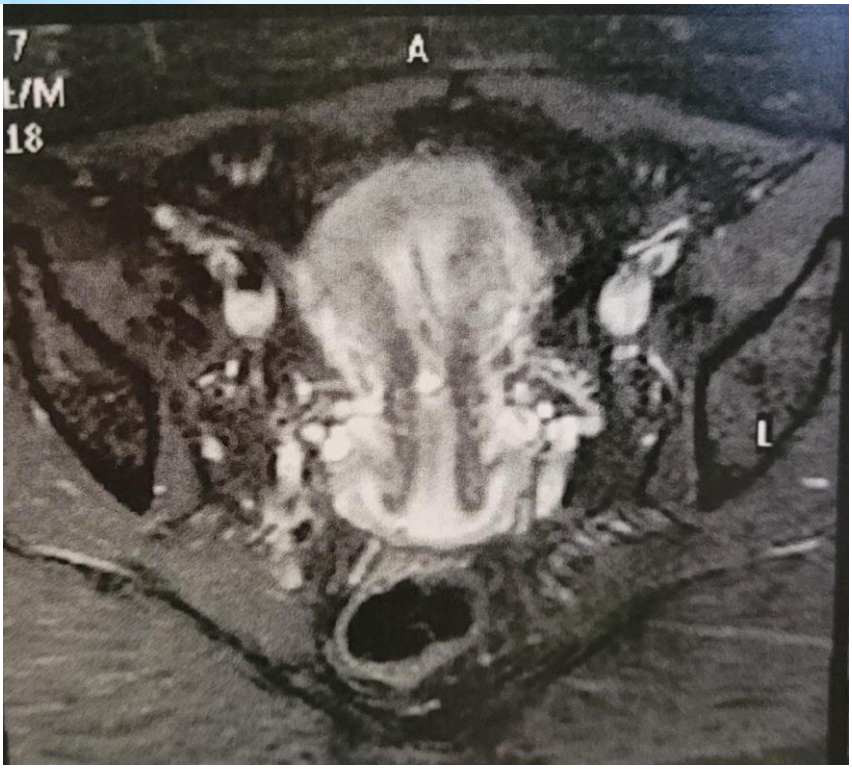


In March/2020, there was an intensification of the COVID-19 pandemic in Ribeirão Preto-SP, which made health services work only on an emergency basis until September/2020, without the possibility of scheduling elective surgical procedures. With the advance of time, there was progression of symptoms and laparoscopy was not proposed due to the unavailability of staff and supplies in the face of the pandemic by the novel coronavirus (COVID-19). In addition, laparoscopy

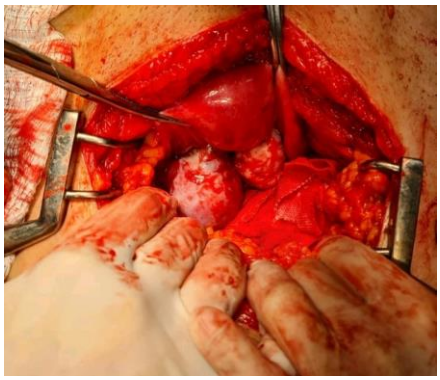
had been initially proposed by another public service, which also suspended elective surgeries because it is a referral hospital for the treatment of the pandemic in the region.

Due to the presence of intestinal foci and extension of the disease, exploratory laparotomy was proposed for cauterization of foci and list of adhesions, to improve the quality of life and pain complaints of the patient.

The patient had two preoperative psychological consultations to prepare her for a possible complication that would lead to the use of colostomy or even the need for hysterectomy, although she reported constituted offspring and desire not to have more children in at least four gynecological consultations.

Due to the novel coronavirus (COVID-19) pandemic, all elective surgeries were postponed, and from February to November 2020, the patient experienced numerous episodes of abnormal uterine bleeding and remained on painkillers in these episodes, such as tramadol, non-steroidal, oral, and intravenous anti-inflammatory drugs, with no complete improvement of pain and many side effects, such as gain weight, gastric symptoms, emotional lability. Progressive worsening of the condition, increased frequency of psychological crises, with limitation of quality of life, work and emotional, requiring the start of amitriptyline 25mg/day since July 2020.

Submitted to exploratory laparotomy on 11/14/2020, confirming the diagnosis of deep endometriosis, “kissing ovaries" and multiple intestinal adhesions in ovaries, uterine walls and fallopian tubes. The procedure lasted 3 hours and 45 minutes. Surgery of great difficulty mainly by the intestinal loops adhered below the ovaries and in the retrouterine region that, in the attempt of lysis of adhesions, caused irreversible bleeding in the uterine wall, requiring total abdominal hysterectomy and bilateral adnexectomy due to the ovarian condition presented.



The patient remained hospitalized for another 36 hours, with good postoperative evolution and abdominal healing. He presented climacteric symptoms 12 days after the procedure, initiating the use of tibolone 1.25 mg, one oral tablet per day and calcium carbonate 1000mg + vitamin D3 800 IU per day, both of continuous use.

Anatomical pathological report 11/19/2020: MACROSCOPIC EXAMINATION Received a vial for anatomopathological examination: 1. BODY and UTERINE COLON - Uterus weighing 135g, measuring 9.8 x 5.1 x 3.2 cm, with smooth and brownish serosa exhibiting areas of fibrous thickening, myometrium white and fasciculated measuring 2.0 cm. The endometrial cavity has virtual light, the endometrium is brownish and measures up to 0.2 cm thick. Or cervix measures 3.2 x 3.1 cm, has external cleft ostium and whitish integumentary surface.

OVARY D - Ovary measuring 3.6 x 2.5 x 1.6 cm, with cerebriform outer surface and firm yellowish parenchyma containing numerous sparse cysts of serous contents.

FALLOPIAN TUBE D - Sinuous fallopian tube, with virtual light and villous fimbriae measuring 3.9 cm.

OVARY E - Ovary measuring 4.6 x 3.7 x 1.2 cm, with cerebriform outer surface and firm yellowish parenchyma containing numerous sparse cysts of serous contents.

FALLOPIAN TUBE E - Sinuous fallopian tube, with virtual light and villous fimbriae measuring 3.5 cm.

SKIN - Irregular flap of white skin and subcutaneous tissue measuring 11.1 x 0.9 x 0.5 cm with white, firm and fasciculated cutting surface.

MICROSCOPIC EXAMINATION AND DIAGNOSIS: 1. UTERINE BODY and NECK - Uterus with endometrium of proliferative pattern, with foci of pseudo decidualization, presenting multiple foci of adenomyosis without atypia. The cervix presents with mild chronic cervicitis and squamous metaplasia of the endocervical epithelium without atypias. 2. OVARY D - Ovary exhibiting follicular cysts, epithelial inclusion cysts and albic ant bodies without atypias. On the surface there are foci of endometriosis without atypia. 3. FALLOPIAN TUBE D - Fallopian tube lined with typical ciliated columnar epithelium. 4. OVARY E - Ovary exhibiting follicular cysts, epithelial inclusion cysts, and albic ant bodies without atypias. On the surface there are foci of endometriosis without atypia.

In the late postoperative period, he reported greater disposition, better control of depression and anxiety, weight loss of 27 kg in 4 months of surgery. The use of amitriptyline was discontinued gradually after 6 months of surgery. Preserved bowel habit, without any episode of bleeding in the stool or change in bowel habit. She does not use analgesics and is being followed up every six months to control hormone levels, climacteric symptoms, and other parameters due to surgical menopause.

4 DISCUSSION

4.1 DEFINITION

Endometriosis is characterized by the presentation of the following symptoms: dysmenorrhea, chronic pelvic pain, deep dyspareunia, infertility, changes in the intestinal and urinary cycles. This can be divided into three distinct presentations: superficial, ovarian, and deep (Endometrium Protocol if: FEBRASGO, 2018).

Lesions that infiltrate the peritoneum by a thickness of less than 5 mm are classified as superficial, while those that infiltrate by a thickness equal to or greater than 5 mm are called deep. In 1997, Nisolle and Donnez defined three different disease entities, namely peritoneal endometriosis, ovarian endometriosis, and finally adenomyotic nodules of the posterior compartment of the pelvis. Endometriosis can still be classified into minimal, mild, moderate, and severe (PODGAEC, 2016).

Endometriosis has a negative impact on several aspects in women's lives, related to social, educational, and professional functions. Nnoaham *et al* (2010) observed that women with endometriosis reported a 38% decrease in productivity in the presence of pelvic pain in addition to impact on mental health, in which 87% of the women investigated had depressive symptoms and 88%, anxiety symptoms (PODGAEC, 2016).

Steroid-pending, the tissue (of histology similar to the endometrium, containing glands and stroma) grows beyond the limits of the cavity, justifying the clinical picture not only of pain in the pelvic region, but can also lead to dysmenorrhea and even infertility, due to adhesions, distortion of the pelvic anatomy and impairment of function ovarian tube, however, even in cases of mild

endometriosis, the negative impact on oocyte development, embryogenesis and implantation has been observed (PODGAEC, 2016).

Characterized by chronic inflammation, endometriosis is among the most common benign gynecological diseases: in every 10% of women in the period of menacme, it is estimated that 40% of these have chronic pain and 50% have fertility problems have the multifactorial condition, which includes the following factors: genetic, immunological, biochemical, hormonal and environmental.

4.2 ETIOPATHOGENESIS

Family studies confirm the contribution of genetic inheritance in the pathogenesis of the disease, in which the incidence of this is higher in first-degree relatives of women affected by it. Changes in the genetic material of women with endometriosis compared to women without the disease were evidenced, these being mainly: in the immune system, angiogenesis, cell cycle regulation and cell adhesion (Treatise on gynecology FEBRASGO: Elsevier, 2019).

There are also two main currents of etiopathogenic hypotheses of the disease: Theory of Coelomic Metaplasia (in which the mesothelium would transform into endometrial tissue) and the Theory of Retrograde Menstruation (in this, favored by hormonal factors and The implantation of endometrial cells would happen thanks to the reflux of menstrual blood from the fallopian tubes towards the abdominal cavity).

Regarding the immunological factor, recent studies point out its influence on the pathogenesis of endometriosis, since several anomalies were found, and the main mechanism evaluated is complementary to the last theory: the non-elimination of endometrial cells that enter the cavity allows the implantation of these and would then lead to the development of endometriosis (BELLELIS, 2010).

4.3 DIAGNOSIS

The beginning of the diagnostic evaluation should be done with special attention to the anamnesis and physical examination. It is known that, although the gold standard is laparoscopy, this procedure is impractical and unnecessary for all patients with suspected disease, since we cannot submit about 10% of the female population to reproductive age to a surgical procedure, for all the risks inherent in it. Thus, the other diagnostic tools are used, with CA 125 dosage and imaging method (PODGAEC, 2016).

4.3.1 Physical examination

On physical examination, it is vital to touch the bottom of the posterior vaginal sac to verify the presence of suspects lesions. It is also necessary to perform ultrasound pelvic and transvaginal,

or even magnetic resonance imaging, as these are important tests for the therapeutic choice (Endometriosis Protocol: FEBRASGO, 2018). The physical examination has a sensitivity of 46 to 72% and specificity of 54% to 99% (rectosigmoid) (PODGAEC, 2016).

4.3.2 Video laparoscopy

Despite the evidence in these tests, laparoscopy with biopsy is the gold standard, used for its confirmation. If the result is positive for both laparoscopy and histological analysis of the biopsy, it is defining the definitive diagnosis of endometriosis. In cases where laparoscopy is positive and histological analysis of the biopsy is negative, endometriosis cannot be excluded. In the latter case, one should analyze a histological sample of endometriomas and endometriosis to confirm the diagnosis and exclude malignancy (Manual de endometriosis: FEBRASGO, 2014).

An exception would be the diagnosis through the direct visualization of endometriosis lesions, when located in an external location, for example, in the vaginal mucosa. In addition, there is not enough evidence to perform laparoscopy according to specific phases of the menstrual cycle, but this should not be done in the presence of the use of hormonal medication or in the three months following its discontinuation, since there may be an underdiagnosis of the disease (PODGAEC, 2016).

The laparoscopic aspect of a typical endometriosis lesion is a black, bluish or purplish, pleated lesion associated with a star-shaped scarring due to tissue bleeding and retention of blood pigments. Lesions conceptualized as atypical are also very common, such as white opacifications, glandular excrescences, candle flame lesions, and peritoneal failures.

Ovarian involvement of endometry may be shown with superficial foci in the ovarian cortex, however the most common presentation is the form of ovarian cyst with chocolate contents, with varying dimensions, which may be associated with pelvic adhesions, especially ovarian adhesions. In cases of lesions larger than 4 cm in diameter and deep endometriosis, histological confirmation is essential, even to exclude rare cases of malignant diseases (PODGAEC, 2016).

4.3.3 Laboratory methods:

The serum tumor marker CA 125 has low sensitivity (27%), being more suitable for the evaluation of inflammatory activity caused by active endometriosis. The only marker that showed statistical difference for diagnosis of mild disease was the IgM antibody for anticardiolipin, but not used in clinical practice (PODGAEC, 2016).

4.3.4 Imaging methods:

Transvaginal ultrasonography, introduced by Abrão *et al*, adds the use of bowel preparation with the use of a rectal enema 1h before the examination, in order to reduce fecal residues and aerocolia, improving the accuracy of the method, reaching sensitivity of 98.1% and specificity of 100% in the diagnosis of rectosigmoid disease, and 95.1% and 98.4% in the diagnosis of retrocervical endometriosis. This method also allows the definition of the number of intestinal lesions, as well as the intestinal layer acometida in each of these lesions, fundamental information for the definition of the surgical strategy.

Magnetic resonance imaging (MRI) has a sensitivity and specificity of 84.8% and 88.8%, respectively, in the identification of a disease that affects theuterosacral ligaments; of 89.4% and 92.3% in the involvement of the retrocervical region; of 72.7% and 100% in the diagnosis of vaginal involvement; of 54.5% and 98.7% in the rectovaginal septum; of 88.3% and 92.8% in the one of intestinal involvement ; 23.1% and 100% in bladder disease; of 50% and 100% in the diagnosis of ureter disease; and 97.1% and 86.8% in the diagnosis of ovarian endometriosis. However, MRI has less capacity to identify the affected intestinal layer when compared to Transvaginal Ultrasonography with bowel preparation and low endoscopy.

The third diagnostic imaging tool is low endoscopy, when a rectal endoscopic probe is introduced, usually under sedation, with the transducer always positioned in the sigmoid and being slowly removed from the sigmoid of the rectum. Studies of the intestinal wall, adjacent areas such as uterosacral ligaments (retrocervical region), the vaginal walls and the rectovaginal septum are done with the movement of this same probe up and down. This method has a sensitivity and specificity of 75 and 67% for retrocervical involvement; 25% and 100% for vaginal involvement; 22.2% and 94.9% for the diagnosis of endometriosis of the rectovaginal endometriosis; 90% and 89.3% for the diagnosis of intestinal endometriosis; and 62.9% and 92.5% for ovarian endometriosis.

4.4 TREATMENT

4.4.1 Clinical treatment

The best treatment of endometriosis is the one that improves the quality of life of the patient according to her signs and symptoms, that is, it is individualized and in each case there are different consequences that lead the professional along with the patient to decide the most appropriate option. (Kennedy S, 2005).

In addition to promoting relief from the pain caused by the disease, the goal of treatment is also to try to prevent or slow the progression of the disease. Due to its characteristic of chronic disease, long-term treatment is necessary to achieve control of symptoms and avoid multiple

surgeries, considering the symptoms, the desire or not to getting pregnant and tolerance to adverse effects presented by drug options (PODGAEC, 2016).

Changing lifestyle habits can be an ally in relieving symptoms of endometriosis. A study conducted highlighted the importance of an adequate exercise program that helped in autonomy, body awareness, strengthening, pain relief and decreased stress and anxiety of women with endometriosis (MADEIRO, 2021).

Another study shows the importance of food in the lives of women with endometriosis, in which the consumption of fruits, vegetables and legumes work as a protective factor and that vitamins A, D and E and the mineral selenium if consumed in a targeted way can have antioxidant effects, improving the inflammation of the body in a general aspect, alleviating symptoms and influencing fertility. Herbal medicines, such as ginger, can improve pelvic pain (FROTA, 2022).

Non-hormonal anti-inflammatory drugs are most often used for pain relief in patients with endometriosis and considered the first choice in patients with contraindications to the use of hormonal contraceptives. They canthen be used in combination with hormonal oral contraceptives for relief of dysmenorrhea, although they fail in 20% to 25% of cases (PODGAEC, 2016). Non-hormonal anti-inflammatory drugs are often used in primary dysmenorrhea, but there is no scientific evidence for specific therapeutic use, only for temporary pain relief in patients with endometriosis. In the case reported, the patient was chronically using these medications, without any relief and with associated gastric symptoms.

Opioid analgesics, widely used by the patient in the clinical case, act mainly on receptors esmu, delta and kapa in the central nervous system. They can be subdivided into weak and strong, according to their potency. Weak opioids correspond to the second rung of the analgesic ladder and are represented by codeine and tramadol. The use of opioidsis the third step and is represented by morphine, methadone, oxycodone, fentanyl and other derivatives. It is recommended to use pure opioid analgesic agonists as the first therapeutic option for a small group of patients with chronic pelvic pain syndrome and for a short period (PODGAEC, 2020).

Antidepressants inhibit the reuptake of monoamines in the synaptic clefts, prolonging their action in the thalamus, brainstem and spinal cord, potentiating the activity of the descending modulatory system with analgesia and improvement of the depression. They can improve sleep, mood, decrease anxiety and, in some cases, increase appetite. They mainly control chronic neuropathic pain. Its myo-relaxing action contributes to the improvement of muscle pain. Tricyclic antidepressants increase synaptic levels of dopamine, serotonin, and/or noradrenaline. Examples are amitriptyline, imipramine and nortriptyline. Amitriptyline, used by the patient in question, is the most widely used in the treatment of pain, but nortriptyline produces fewer adverse effects. Analgesic

doses of tricyclic antidepressants are lower than antidepressant doses. Amitriptyline has an analgesic effect from 25mg and the required antidepressant dose exceeds 75mg. Adverse effects include glaucoma, hyperthyroidism, cardiac arrhythmias, heart failure, urinary retention (PODGAEC, 2020).

Drug therapy with progestogens, combined oral contraceptives, androgens, and GnRH agonists are generally effective for pelvic pain relief, since they have the potential to simulate two physiological conditions related to better pain, pregnancy and menopause. However, adverse effects and costs must be analyzed. The clinical treatment has success rates ranging from 80% to 100% and with intervals without any symptoms that last up to 2 years (SILVA, 2021).

The use of hormonal oral contraceptives results in inhibition of ovulation, reduction of gonadotropin levels, reduction of menstrual flow and decidualization of endometriotic implants. They are also associated with decreased cell proliferation and increased apoptosis in the eutopic endometrium in women with endometriosis. A question to be asked considering with regard to pain control and the use of combined contraceptives is the estrogenic component, which could result in stimulation for diseases. Another question is associated with the cyclic scheme, in which the patient menstruates in the interval of the pill and bleeding, in addition to presenting dysmenorrhea, could provide the reflux of endometrial cells into the abdominal cavity (PODGAEC, 2016).

Oral medications that can be used continuously are: norethindrone acetate, desogestrel and dienogeste. Other forms of presentation are depot medroxyprogesterone acetate that should be applied at a dose of 150 mg, intramuscularly, every three months, and long-acting contraceptives, such as libe intrauterine device. levonorgestrel rador (used by the patient in the case reported) and etonogestrel implantation. Side effects of progestogens include weight gain, mood swings, loss of bone mass, associated with the latter, mainly, acetate of deposition medroxyprogesterone. As well as progestogens alone, the use of combined estrogen and progestogen pills is indicated as a first-line treatment by several guidelines of medical societies. The mechanism of action is similar to that of progestogens. No combination has been shown to be superior in the clinical treatment of endometriosis and there is still no consensus on whether the administration should be continuous or cyclic, or on the form of presentation (oral, injectable, patch or vaginal ring) (FEBRASGO, 2021).

Dienogeste is an oral progestogen that has been systematically investigated as monotherapy for the treatment of endometriosis. Pharmacologically, it combines the advantages of 19-norprogesterone with that of other classes of progesterone derivatives. It binds to the progesterone receptor with high specificity and produces a potent progestogenic effect associated with high serum levels. Unlike other agents of the class of 19-norprogesterone derivatives, dienogeste has no androgenic effects, but rather beneficial antiandrogenic properties with minimal changes in lipid and

carbohydrate levels. Among the progestogens, dienogeste has the highest uterotrophic index and, thus, has greater power to atrophy the endometrium and transform the endometrial glands, thus standing out for its endometrial action, with the control of menstrual bleeding and the inhibition of ectopic endometrial tissue, present in endometriosis. Up to 20% of women will go intonorrhea with its use alone and more than 70% will reduce the amount and duration of withdrawal bleeding. (MACHADO, 2013). Adverse effects considered potentially related to treatment were observed in 16.1% of patients, including breast discomfort, nausea and irritability, which have demonstrated progressive reduction over the course of treatment (PODGAEC, 2016).

The patient in the referred clinical case used dienogeste for at least 6 months, without preventing the progression of the condition or therelief of pain complaints.

The levonorgestrel-releasing uterine system (IUS) reaches endometriotic lesions through the circulation or directly by diffusion from the uterus. Bahamondes et al identified nine studies, but theywere randomized, which concluded that in women who do not wish pregnancy, the system may be effective in controlling dysmenorrhea for a period of 5 years. Currently, some experts propose that the system, unlike when inserted for contraceptive purposes, should be replaced after 3 years, because it seems that the analgesic effect decreases after this period, but there are still no sufficient data in the literature for this conclusion. The ovulatory process is a key event in the genesis of ovarian endometriomas; studies suggest that blocking ovulation is essential to prevent the onset of this form of the disease. Therefore, the use of this method should be avoided in women in the presence or in the postoperative period of endometriomas, as there is a higher risk of recurrence when compared to hormonal contraceptives, which cause anovulatory status (PODGAEC, 2020).

The patient whose case is reported in this article used levonorgestrel-releasing IUS for 11 months , without containing bleeding or pain complaints.

There are adjuvant medications for pain control, which, despite presenting good results in clinical studies, have not been widely used in clinical practice due to side effects, such as danazol, GnRH agonists and aromatase inhibitors.

Complementary therapies may be indicated in the follow-up of patients with symptomatic endometriosis, such as acupuncture, pelvic floor physiotherapy, psychotherapy and use of analgesics, such as gabapentin and amitriptyline, among others, or follow-up, in conjunction with pain management specialist, to optimize analgesia. It is essential to evaluate other causes of pain in women already diagnosed with endometriosis who have not responded to clinical treatment (FEBRASGO, 2021).

Since sexuality is considered by the World Health Organization one of the pillars of Quality of Life, failure to address, diagnose and treat sexual dysfunctions in Patients with endometriosis

reflect incomplete care. The improvement of sexual functioningl has become the great clinical challenge, with good prospects when the management of dysfunctions is carried out carefully and by a qualified multidisciplinary team. In specific cases, when the painful symptomatology (especially deep dyspareunia) is significant, even if the other symptoms are milder, the possible benefit of the surgical approach, which may improve sexual function in patients with retrocervical lesions, in the uterosacral ligaments, posterior vaginal sac fundus and with intestinal involvement (PODGAEC, 2020).

There is a great association of endometriosis and depression. The vast majority of the patients investigated require psychological care due to the high prevalence of depressive symptoms, focusing on psychic aspects involved in the process of illness and depression. In these cases, depression should also be treated and not only understood as an expected result of suffering resulting from the chronicity of the painful symptom (LORENÇATO, 2002).

4.4.2 Surgical treatment

Most patients with endometriosis have specific symptoms, such as pain and/or infertility. In some groups of patients, it is easy to decide on surgery, as patients have unpredictable pain that resists any clinical treatment. Other groups offer more difficulty, because they are young patients with ovarian disease or infertile patients without pain who can benefit only from observation, clinical treatment or assisted reproduction techniques. Operating too early exposes them to the overall risk of surgery, the risk of affecting their ovarian reserve and exposing them to repeat surgery. Not operating exposes them to disease progression and a worse prognosis, to decreased ovarian function by the disease itself and to the chronicity of pain with the participation of the central nervous system (PODGAEC, 2020).

Complete surgery reduces the risk ofresuscitation and subsequently repeated surgery, but there is a risk of functional impairment, such as a neurological deficit and ovarian failure. The surgical strategy is then based on the contract that the surgeon in charge made with the patient. As the surgeon in charge is the only one who has received the patient's complaints, who has examined her and who knows her goals with the surgery, it is he who It obtains consent and is the depository of the patient's trust to achieve the best for her, who will be deprived of consciousness during surgery. Therefore, the surgeon is the only one to decide intraoperatively (PODGAEC, 2020).

Usually, endometriomas present as a pelvic mass resulting from the growth of ectopic endometrial tissue within the ovary, containing thick brown fluid (hence the name chocolate cyst) and are often densely adhered to neighboring structuressuch as the peritoneum, fallopian tubes, and various intestinal segments.

In more severe cases of deep endometriosis, such as that of the patient, video-laparoscopic surgery in addition to the best option for diagnosis is the best for treatment, since itis more conservative than conventional laparotomy and there is a greater chance of preserving organ functions, improving quality of life and fertility (ALMEIDA, 2022).

A study in patients with chronic pelvic pain reveals that in the surgical treatment of endometriosis laparoscopy is a better option than laparotomy, since it involves fewer surgical complications, there is an easier recovery, preservation of fertility and the production of hormones by the ovaries. (FLYCKT R, 2017).

The exploratory laparotomy would then be the last treatment option, presenting a higher risk for the patient, who was properly oriented before the procedure in which total abdominal hysterectomy and bilateral adnexectomy were required due to the ovarian condition that did not allow the preservation of the uterus and appendages.

Endometrioma can be addressed by removing the capsule from the cyst or by draining the contents and cauterizing the capsule. It is important to emphasize that both surgeries should be careful to minimize the risk of decreased follicular reserve. Capsule removal decreases recurrence rates and improves the chance of pregnancy and pelvic pain associated with ovarian endometrioma. The European Society of Gynecological Endoscopy (ESGE) published, in 2017, a guideline of strategies for the treatment of ovarian endometrioma, among them: separating the ovary with endometrioma from the abdominal wall, which is commonly adhered to. It is important to identify the ureter to prevent damage. Also, at this time, this separation commonly results in the drainageof the endometrioma. Endometriotic lesions of the pelvic wall and broad ligament as well should be removed. Urinary tract endometriosis affects approximately 1% of all patients with endometriosis (FEBRASGO, 2021).

The ovaries can form several locules with liquid content, generated from repeated hemorrhages, and homogeneous lesions can also be formed with several internal linear septations. Endometriosis that occurs bilaterally in 50% of cases and, when it is associated with intraovarian adhesions, is described as "kissing ovaries" (FONTANA, 2009).

In a study conducted by Ghezzi et al in 2005, "kissing ovaries" were diagnosed by ultrasound and confirmed by laparoscopy in 32 patients. Of these, 27 had moderate to severe endometriosis and another five had benign adnexal masses. Intestinal endometriosis (18.5% vs. 2.5%) and fallopian tubes (92.6% vs. 33%) were significantly more frequent in patients with kissing ovaries than in patients without this finding. In infertile patients (n = 145), they were associated with a higher proportion of women with fallopian tube obstruction (80% vs. 8.6%). Considering patients with moderate to severe endometriosis (n = 189), the median (variation) of the American Fertility

Society revised score (74 [32–148] vs. 35 [16–146]) and operative time (115 minutes [65–245 minutes] vs. 50 [15–180 minutes]) were significantlyhigher in patients with ovaries than in those without adhesions, concluding that detection on ultrasound is strongly associated with the presence of endometriosis and is a marker of the most severe form of this disease (GHEZZI, 2005).

Effective surgery (oophorectomy) is an alternative to cystectomy, which should be discussed extensively with the patient prior to surgery. As an advantage of oophorectomy, the lower formation of recurrent endometriomas is highlighted. It is, however, an option dedicated almost exclusively to women who no longer wish to become pregnant and undoubtedly depends on the age of the patient, in addition to the number of recurrences of the disease and severity (PODGAEC, 2020).

Often, the rectum or sigmoid is firmly adhered to the uterine torus and/or posterior vaginal fornix and its dissection is an essential part of surgery to prevent iatrogenic intestinal lesions. The surgical technique to address lesions in thetopography consists primarily of reestablishing the pelvic anatomy, undoing adhesions that may occur between the intestinal loop, ovaries, and uterus. Next, identify the utereters bilaterally and perform their uterolysis until they are laterally removed from the endometriosis; explore the pararectal avascular spaces bilaterally, identifying and preserving the hypogastric nerves. Surgical planning to loosen the rectum of the posterior uterine wall should be initiated laterally to the loop, through the pararectal spaces. Once isolated, detachment of the anterior wall of the rectum from the posterior wall of the uterus can be done (PODGAEC, 2020).

In the postoperative period, the importance of sexual abstinence should be emphasized in order to avoid suture dehiscence and infection. The surgical treatment of this type of lesion presents good performance with betterthe important quality of life (PODGAEC, 2020).

5 CONCLUSION

In the case reported, an exploratory laparotomy was performed that confirmed the diagnosis of the patient in question: deep endometriosis, kissing ovaries and multiple intestinal adhesions in the walls and fallopian tubes. Conservative treatment is always more indicated, however, due to the rapid evolution of the disease and the ovarian condition presented, the patient underwent surgical menopause, resulting from a total abdominal hysterectomy combined with bilateral adnexectomy. Despite this inevitable surgical fate, the patient is doing well, reporting remission in 90% of pain complaints, in addition to weight loss, increased disposition and important pain relief sensation .

The hormonal therapy adopted was tibolone, which is later converted into estrogen, progesterone and testosterone, so that there is suppression of endometrial thickening and decreases the chances to activate the activity of remaining foci of endometriosis.

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