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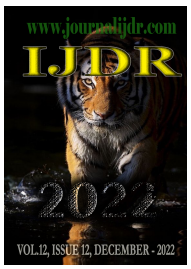

CASE REPORT **OPEN ACCESS**

GIANT SUBSEROUS MYOMA: CASE REPORT

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ABSTRACT

Os miomas são a neoplasia benigna mais comum dos órgãos genitais de mulheres em idade fértil. Eles podem ter um impacto negativo no sistema reprodutivo e podem ser únicos ou, mais frequentemente, múltiplos, causando significativa morbidade e deterioração na qualidade de vida dessas pacientes. Tradicionalmente, os miomas têm sido a principal causa de histerectomia, tornando esta cirurgia a terceira intervenção cirúrgica mais comum em todo o mundo. A miomectomia cirúrgica também tem sido uma opção de tratamento alternativo há mais de 100 anos. Este trabalho objetivou relatar a remoção de um mioma subseroso gigante, destacando as principais complicações e circunstâncias relacionadas, atendido na Santa Casa de Araras – SP. Devido a sua elevada incidência, com destaque para a altíssima frequência em pacientes negras, a equipe médica deve sempre suspeitar da existência de um mioma quando ocorrerem casos de sangramento uterino anormal. O método diagnóstico mais utilizado é a ultrassonografia, com destaque para a modalidade pélvica transvaginal, com a ressonância magnética nuclear sendo de grande utilidade para o fechamento dos diagnósticos. Além disso, a miomectomia por via laparotômica é uma boa opção cirúrgica para a retirada do mioma e preservação do aparelho genital feminino.

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INTRODUCTION

Myomas are the most common benign neoplasm of the reproductive organs of women of childbearing age (El-Balat *et al*., 2018). They can have a negative impact on the reproductive system and can be single or, more often, multiple, causing significant morbidity and deterioration in the quality of life of these patients (Downes *et al*., 2010; Sparic *et al*., 2016). According to the literature, 40-60% of all hysterectomies performed are due to the presence of myomas (Fleischer *et al*., 2008; Sparić, 2014). These myomas consist mainly of smooth muscle cells and contain different amounts of fibrous tissue (Okolo, 2008). During its growth, a myoma compresses the surrounding structures (myometrium and connective tissue), causing the progressive formation of a kind of pseudocapsule, rich in collagen fibers, neurofibers and blood vessels (Sparic *et al*., 2016). Occasionally, the continuous surface of the pseudocapsule is interrupted by bridges of collagen fibers and vessels that anchor the myoma to the myometrium. This causes the formation of a clear cleavage plane between the myoma and the pseudocapsule and between the pseudocapsule and the surrounding myometrium (El-Balat *et al*., 2018). This pseudocapsule causes a displacing action (which is not destructive) on the myometrium; however, the integrity and contractility of the uterine structure are maintained (Tinelli *et al*., 2009, 2012). Data from the literature show that between 5.4 and 77% of women have myomas, depending on the study population or the diagnostic techniques applied (Evans & Brunsell, 2007). Studies performed with ultrasound (USG) have confirmed that the prevalence of myomas is lower in Europe than in the United States, probably due to racial differences (Somigliana *et al*., 2007; Sparic *et al*., 2016). Furthermore, myomas are detected in 70% of uteri after hysterectomy, where multiple myomas are present in more than 80% of cases (El-Balat *et al*., 2018); however, their prevalence has been largely underestimated in previous epidemiological studies which focused mainly on symptomatic women (Sparic *et al*., 2016). With the use of more advanced non-invasive imaging techniques, such as 3D and 4D USG screening in the general population, epidemiological studies have become more accurate in the last two decades (El-Balat *et al*., 2018; Sparic *et al*., 2016). Although oral contraceptive pills have been used to treat myoma-related symptoms such as bleeding and dysmenorrhea, their effect is usually based on suppressing/ regulating the menstrual cycle. However, the effect of pills containing

ethinyl-estrogen/progesterone on myoma growth is less clear and few authors mention effect on myoma size (El-Balat *et al*., 2018); the same goes for levonorgestrel intrauterine devices (Senol *et al*., 2015). Over the past decade, selective progesterone receptor modulators (SPRMs) such as asoprisnil, ulipristal, and telapristone have been evaluated as therapeutic agents for uterine myomas, and trials have shown the ability of ulipristal acetate not only to control myoma-associated bleeding, but also to significantly decrease its size, although there is justifiable discussion about how clinically significant this reduction in measurements really is (Donnez *et al*., 2012). Traditionally, myomas have been the main cause of hysterectomy, making this surgery the third most common surgical intervention worldwide (Fleischer *et al*., 2008; Sparic *et al*., 2016), however, although the technique offers a definitive solution for the problem, many patients find it unacceptable for psychological reasons or for those who want to have children (El-Balat *et al*., 2018). As a result, surgical myomectomy has been an alternative treatment option for over 100 years, originally via laparotomy and later via minimally invasive techniques such as laparoscopy or hysteroscopy (Okolo, 2008). For the specific diagnosis of submucosal myomas, that is, intracavitary, hysteroscopic myomectomy remains the only treatment option. Often, conservative treatment does not work in the long term, while successful removal of a submucosal myoma, usually solitary, usually results in a complete resolution of all symptoms (Fleischer *et al*., 2008; Sparic *et al*., 2016). Furthermore, although intramural and subserousmyomas can be treated by "watchful waiting", symptom-oriented treatment or medical intervention (surgical or non-surgical) and diagnosis of a submucosal myoma as a cause of amenorrhea and dysmenorrhea should lead to scheduling immediate surgical hysteroscopy (El-Balat *et al*., 2018). Due to the epidemiological frequency of myomas, risks to patients' quality of life, morbidity and high surgical rate, it is intended to provide information that will be valuable for the diagnosis of myomas and their management, thus contributing to continuing medical education. Therefore, the aim of this study was to report a single case of a giant subserous myoma, highlighting the main complications and related circumstances.

METHODS

This is the report of a single case of a patient assisted by Santa Casa de Araras - SP, who underwent removal of a giant subserous myoma. The researchers undertook not to divulge any data that would allow the identification of the patient described and all information related to the case was collected from the patient's medical record. This work was submitted to the Research Ethics Committee of Santa Casa de Araras - SP, having been approved for meeting the requirements of Resolution 466/2012 of the National Health Council, which defines the ethical and legal aspects of research involving human beings.

CASE REPORT

It was a female patient, 35 years old, brown, nulliparous, married, born in Santa Barbara Do Oeste - SP and from Nova Odessa - SP. The patient sought outpatient medical care at a Basic Health Unit (BHU) in the city of Araras - SP, the city where she lived at the time, due to a single episode of abnormal uterine bleeding for a period of 21 days, more specifically in the month of May, 2022. At the time of admission, she reported that, for three years, she had had a progressive increase in the volume of her abdomen. However, as there were no associated symptoms, she did not seek medical attention. She denied any complaints of abdominal pain, change in urinary or bowel habits, nor changes in her menstrual cycles and flows. The patient also reported never having performed any gynecological follow-up or complementary exams. After being seen at the BHU, a transvaginal pelvic USG was performed on May 16, 2022, where a heterogeneous image was observed extending from the pelvis to the right hypochondrium and epigastrium, which seemed to correspond to a pedunculated myoma with cystic degeneration. On May 19, 2022, a nuclear magnetic resonance (NMR) of the pelvis was performed, which showed a uterus in anteversion lateralized to the right, measuring 9.3 x 5.0 x 4.6 cm and with an estimated volume of approximately 213.9 cm^3. Also, a voluminous exophytic and pedunculated solid lesion was highlighted next to the uterine fundal wall, which projected cranially to the mesogastrium and epigastrium, measuring approximately 22.4 x 22 x 16.1 cm, with an estimated volume of 7,934 cm^3. The NMR distinguished a very heterogeneous signal, with an extensive area of liquefaction / necrosis in its interior and peripheral enhancement by paramagnetic contrast. Therefore, the possibility of a large pedunculated leiomyoma was considered in the initial diagnosis. The identified pedicle measured approximately 3.8 cm in diameter. After carrying out tests and surgical planning, the patient underwent myomectomy via laparotomy on August 10, 2022 and, according to her wishes, uterine preservation was performed due to her reproductive desire. The procedure was uneventful and the result of the anatomopathological examination described a nodule measuring 25 x 20 x 12.5 cm and weighing 3,784 g, which was defined as a leiomyoma with areas of necrosis.

DISCUSSION

Uterine myoma is a benign tumor with a prevalence of 50% for European women and 80% for black women. About 30% of myomas are symptomatic and the classification of the International Federation of Gynecology and Obstetrics (IFGO), using a scale from 0 to 7, indicates three subtypes: submucosal myomas (0, 1 and 2), interstitial myomas (3, 4 and 5) and subserous myoma (6 and 7). The diagnosis is usually performed by 2D and 3D USG, which can be associated with hysterosonography. Hysteroscopy and NMR can also be proposed (Fernandez, 2014). Hysterectomy is the main treatment, if possible vaginally or by laparoscopy. Conservative treatment (myomectomy) can be performed via hysteroscopy, or laparoscopy, or via laparotomy for patients who wish to preserve their fertility. Artery embolization is an alternative to hysterectomy or myomectomy for patients with no desire to become pregnant. Preoperative treatments with gonadotropin-releasing hormone (GnRH) analogues or selective progesterone receptor modulators (SPRM), such as ulipristal acetate, treat anemia, decrease myoma volume, and may modify therapeutic strategies (Fernandez, 2014). Within the context presented, this work aimed to report a single case of a giant subserous myoma, highlighting its main complications and related circumstances.

The report presented here was the case of a 35-year-old female patient, brown and nulliparous, who presented at a BHU with a 21-day uterine bleeding. USG and NMR examinations defined the presence of a large pedunculated leiomyoma with areas of necrosis. The myoma was removed from the patient by myomectomy performed via laparotomy to preserve the uterus, at her request. Abu Hashim *et al*. (2020), described the case of a large anterior cervical myoma (473 g) in a young nulliparous woman successfully submitted to myomectomy via laparotomy. After initial diagnosis by NMR, a preoperative ureteral catheterization was performed. The myoma was enucleated following the precepts of Victor Bonney, the pioneer of myomectomy, combined with simple additional stages. GnRH analogues, intraoperative injection of vasopressin, or preoperative uterine artery ligation were not used. A six-month follow-up NMR revealed an intact cervical canal in the midline position with no evidence of residual myoma. Rokhgireh *et al*. (2020) presented a case report of a 38-year-old Persian woman with acute abdominal pain and a history of uterine myomas. The patient refused to undergo a laparoscopic myomectomy. Her ultrasound examination revealed free fluid in the abdominal cavity, and her vital signs were indicative of vasogenic shock. A diagnostic laparoscopy was performed to identify and control the source of bleeding, 400 ml of blood and blood clots were removed. Active bleeding was seen from a vein overlying a subserous myoma. A laparotomy myomectomy was performed and the patient was discharged three days after surgery without complications. For the authors, surgeons should consider the possibility of this complication in women with acute abdominal pain and a history of uterine leiomyoma.

Finally, Bankole *et al*. (2021) reported a case of multiple histologically confirmed parasitic myomas in a 39-year-old woman coexisting with primary uterine myomas. The woman had a history of progressive abdominal edema and associated lower abdominal pain lasting 8 years. In addition, there was a history of exploratory laparotomy with exeresis of the uterine mass. An abdominal USG revealed multiple uterine myoma nodules in the submucosal, intramural, and subserous layers of the uterus with normal, bilateral ovaries. The patient underwent an abdominal myomectomy and intraoperative findings revealed multiple uterine myoma nodules with a total weight of 1670 g. There were multiple parasitic myoma nodules adhered to the serous layer of the colon, with the largest measuring 3.5 x 2 cm. The management and challenges associated with unanticipated parasitic myomas at surgery were discussed. The authors highlighted the role of multidisciplinary care and advocated a high index of suspicion during preparation for surgical intervention in women with multiple uterine myomas.

CONCLUSION

Due to its high incidence, with emphasis on the very high frequency in black patients, the medical team should always suspect the existence of a myoma when there are cases of abnormal uterine bleeding. Furthermore, the existence of giant myomas should be considered in cases of progressive increase in abdominal volume. In order for the problem to be circumvented at its onset, patients should frequently visit their gynecologist for routine consultations. The most used diagnostic method is USG, with emphasis on the transvaginal pelvic modality, with NMR being very useful for closing the diagnoses. In addition, for those patients who still wish to have children, laparotomy myomectomy is a good surgical option for removing the myoma and preserving the female genital tract.

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