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Research Article

HEPATIC ENDOMETRIOSIS: SURGICAL MANAGEMENT AND LITERARY CONSIDERATIONS OF A RARE DISEASE

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Abstract

Endometriosis is a benign, chronic, estrogen-dependent disease that affects about 33% of patients of childbearing age. The hepatic form is rare, there are very few cases reported in the literature. To evaluate hepatic endometriosis, considered a rare form of the disease. Literature review based on articles entered in scientific databases, such as PubMed and Scientific Electronic Library, using the descriptors: “Endometriosis” and “Pelvic pain”, without temporal filter. cases: Only 42 were described in the literature about hepatic endometriosis. The preoperative diagnosis of the pathology is usually difficult and challenging, since the radiological features and clinical symptoms tend to vary. In cases of uncertainty, the differential diagnosis with liver masses should always be considered. For diagnosis, it is necessary to evaluate the patient's clinical complaints such as abdominal pain with worsening at the beginning of the menstrual cycle, dispareun infertility. In addition, the most widespread treatment currently is surgery with resection of the lesion by lapar, associated with the histopathological study. Furthermore, hormonal treatment also proves to be an effective disease influencing the process.

Keywords: Endometriosis, Ectopic Endometrium, Chronic Pain, Inflammatory Hepatitis, Pelvin pain.

INTRODUCTION

Endometriosis is defined as a chronic, estrogen-dependent disease that affects about 6-10% of women of childbearing age and corresponds to the anomalous presence of endometrial tissue outside the uterine cavity. The main clinical manifestations are, respectively, chronic pelvic pain (71-87%), infertility (21-47%), dyspareunia, dysmenorrhea and intestinal symptoms. Although benign, it is related to high morbidity and low quality of life (PRODROMMIDOU *et al.,* 2020). Therefore, it corresponds to a pathology with higher prevalence in ovaries, fallopian tubes and peritoneum, being called pelvic endometriosis. However, there is still the presence of ectopic endometrium in extrapelvic sites such as lungs, pleura, kidneys, bladder, abdominal wall, navel and cesarean scar, which corresponds to 8.9% of endometriosis cases. The hepatic form represents a rare portion of this group (RANA *et al.,* 2019), which is described for the first time in 1986 and only 42 cases have been reported in the literature to date (MUSHTAQ *et al.,* 2021). The pathophysiological mechanism of endometriosis is still unknown and several theories have been proposed. There are two theories that can explain the form of hepatic endometriosis, namely the implantation theory and the coelomic metaplasia theory. The first suggests that endometrial tissue is transported to other sites through retrograde menstruation, hematogenous or lymphatic dissemination, and iatrogenic injury, thus explaining the occurrence of intraparenchymal cases of hepatic endometriosis.

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The second is defined by chronic inflammation of unknown signaling, which may explain the occurrence of endometriosis in the pericardium, for example (KERAMIDARIS *et al.,* 2018). The diagnosis of extrapelvic endometriosis is difficult and is usually made many years after the onset of symptoms and, when symptomatic, it is often confused with other pathologies. With regard to liver involvement, abdominal pain worsening at the beginning of the menstrual cycle should be investigated and associated with endometriosis. Ultrasonography, magnetic resonance imaging and computed tomography can be used to aid in the diagnosis, however, only the histopathological study confirms the disease (MUSHTAQ *et al.,* 2021). Treatment is surgical, which can be done by laparoscopy to remove endometrial foci in extrapelvic regions, or can be done by hysterectomy, when endometriosis is restricted to the pelvic part. In patients with a desire for offspring, oral contraceptives, such as progestogens alone or combined pills, can be used, considered as first-line treatment according to medical guidelines (FEBRASGO, 2018). In summary, the objective of this study was to evaluate hepatic endometriosis and its literary considerations, in order to elucidate knowledge about the disease, contributing to the construction of better care and resolution of the problems faced by its carriers.

MATERIALS AND METHODS

The present study is based on a literature review carried out from articles selected by the criteria of relevance and up-to-dateness inserted in scientific databases, such as PubMed and Scientific Electronic Library. The descriptors were used: “Endometriosis” and “Pelvic Pain”, without temporal filter. Inconclusive articles were excluded.

DISCUSSION

In 2019, a retrospective cohort study on hepatic endometriosis was carried out with cases previously reported in the literature concomitantly with a new case report of the disease (29 cases to date), which compares its presentations, imaging, treatment and pathological characteristics of the disease. illness. In 19 cases, 10 were nulliparous and 9 were multiparous, the parity component was removed as a possible risk factor. Six out of 29 cases were in the post-menopausal period, thus showing that there is no protective factor regarding reproductive age. Twelve out of 29 patients had a prior history of endometriosis. Half of the patients (51%) had undergone previous pelvic surgery, including hysterectomy, raising the possibility of seeding endometrial tissue outside the uterine cavity. Only 2 cases reported cyclic pain during menstrual period. Finally, a total of 90% of the cases reported symptoms of epigastralgia and/or pain in the right hypochondrium, with only 2 asymptomatic cases and incidental diagnosis (RANA *et al.,* 2019). Guerrieiro, in one of his publications, he states that one of the possible causes of abdominal endometriosis is a previous history of laparotomy or laparoscopy. It is a clinical condition that can be confused with suture granuloma, incisional hernia or even metastatic cancer (GUERRIERO et al. 2020). Outrossim, Keramidaris mentions cases of sarcoma and adenosarcoma resulting from hepatic endometriosis, although they are rare events regarding the malignancy resulting from this pathology (KERAMIDARIS *et al.,* 2018).
An important point for differentiating pelvic from hepatic endometriosis is that it can be found in post-menopausal patients due to exposure to estrogen, both by ingestion of hormone replacement treatments, and by the conversion of circulating androstenedione into estrone, which is converted to estrogen. estradiol in extraglandular tissues (ASRAN, 2010).

The preoperative diagnosis of hepatic endometriosis is often difficult and challenging, as the radiological features and clinical symptoms tend to vary. In cases of uncertainty, the differential diagnosis with liver masses, complex cyst, metastasis and hepatocellular carcinoma should always be considered, as findings demonstrate that the medical history with regard to pain may not be as useful for the diagnosis of endometriosis liver (PRODROMMIDOU *et al.,* 2020). In addition, it is necessary to evaluate the patient's clinical complaints such as abdominal pain with worsening at the beginning of the menstrual cycle, dyspareunia and infertility. However, epigastric pain and right upper quadrant pain should also be investigated. Ultrasonography, CT and MRI can be used, but there are no pathognomonic findings that can diagnose liver endometriosis (NEZHAT *et al.,* 2005). Regarding the operative resection of the lesion, it proved to be a safe and effective treatment, as well as this type of resection varied according to the extension and location of the disease, which was the treatment (PRODROMMIDOU *et al.,* 2020). Thus, a histopathological study is necessary to close the diagnostic hypothesis (GUERRIERO, 2020). In some studies, a percutaneous biopsy can be performed preoperatively to define the real cause of the patient's symptoms. However, in the report by Nezhat *et al.,* laparoscopy was performed, which has benefits such as the ability to explore the upper abdominal cavity, which can be difficult in exploratory laparotomy for the diagnosis of extrapelvic endometriosis. In addition, this approach brings other positive points, such as fewer cases of postoperative pain, shorter hospital stay and faster recovery period (NEZHAT *et al.,* 2005).

Surgical description

The procedure begins with the performance of pneumoperitoneum with open technique followed by diagnostic laparoscopy. During the inventory of the abdominal cavity, foci of endometriosis were observed involving the diaphragm in the region of the right hemi- dome and in the liver in segments V and VII on the anterior surface with approximately 2 cm. For better hepatic mobilization, lysis of adhesions, common in cases of hepatic endometriosis, is performed. The right hepatic lobe is mobilized. The demarcation of the resection margin is performed with monopolar electrocautery (hook). The margin should be just enough for a resection with free margins, with no need for enlargement. The exeresis of the foci is followed by cauterization of the liver parenchyma with ultrasonic energy. The pieces are sent for anatomopathological analysis. The liver bed can be cauterized again with monopolar energy for hemostasis. If there is no bleeding, the procedure is ended, with no need for drains.

Conclusion

Thus, hepatic endometriosis is still a rare disease of uncertain etiopathogenesis and that the most accepted theory to date is the theory of implantation and coelomic metaplasia. With few cases reported, the lack of information has been shown to be the factor that most contributes to the difficulty of a concrete and accurate diagnosis about the pathology. In addition, new studies that investigate its etiopathogenesis are essential for the process of diagnosis and treatment to become more efficient. Considering that it is an incurable disease that causes serious damage to women's lives.

Statement of competing interests: The authors have no competing interests.

REFERENCES

Asran, M., Rashid, A. and Szklaruk, J. 2010. Hepatic endometriosis mimicking metastatic disease: a case report and review of the literature. *Journal of radiology case reports*, *4*(11), 26–31. https://doi.org/10.3941/jcrcr.v4i11.589

Guerriero S, Conway F, Pascual MA, Graupera B, Ajossa S, Neri M, Musa E, Pedrassani M, Alcazar JL. Ultrasonography and Atypical Sites of Endometriosis. *Diagnostics (Basel).* 2020 May 27; 10(6):345. doi: 10.3390/diagnostics10060345.

Keramidaris D, Gourgiotis S, Koutela A, Mpairamidis E, Oikonomou C, Villias C, Rigas A. Rare Case of Hepatic Endometriosis as an Incidental Finding: Difficult Diagnosis of a Diagnostic Dilemma. *Ann Hepatol.* 2018 Aug 24;17(5):884-887. doi: 10.5604/01.3001.0012.3173. PMID: 30145568.

Mushtaq, R., Ameer, A., Hanif, M. and Rauf, F. 2021. Extra-pelvic endometriosis presenting as recurrent hepatic cyst: case report and literature review. *International Surgery Journal*, *8*(8), 2436-2453. DOI: http://dx.doi.org/10.18203/2349-2902.isj20213143

Nezhat C, Kazerooni T, Berker B, Lashay N, Fernandez S, Marziali M. Laparoscopic management of hepatic endometriosis: report of two cases and review of the literature. *J Minim Invasive Gynecol.* 2005 May-Jun;

12(3):196-200. doi: 10.1016/j.jmig.2005.03.015. PMID: 15922974.

Podgaec S, Caraça DB, Lobel A, Bellelis P, Lasmar BP, Lino CA, et al. São Paulo: Federação Brasileira das Associações de Ginecologia e Obstetrícia (FEBRASGO); 2018. (Protocolo FEBRASGO - Ginecologia, no. 32/ Comissão Nacional Especializada em Endometriose)

Prodromidou, A., Machairas, N., Paspala, A., Hasemaki, N. and Sotiropoulos, G. C. 2020. Diagnosis, surgical treatment and postoperative outcomes of hepatic endometriosis: A systematic review. *Annals of Hepatology*, *19*(1), 17-23. DOI: 10.1016/j.aohep.2019.08.006

Rana, P., Haghighat, S. and Han, H. 2019. Endometrioma of the liver: A case report and review of the literature. *Case Reports in Hepatology*, *2019*. DOI: 10.1155/2019/4734606

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