e-ISSN 1941-5923
© Am J Case Rep, 2023; 24: e941946
DOI: 10.12659/AJCR.941946

Received: 2023.07.26
Accepted: 2023.10.27
Available online: 2023.11.15
Published: 2023.XX.XX

Unusual Manifestation of Membranous Dysmenorrhea: Case Report

Authors' Contribution:
Study Design A
Data Collection B
Statistical Analysis C
Data Interpretation D
Manuscript Preparation E
Literature Search F
Funds Collection G

DEF 1 Brianda Lizett Luna-López
DE 1 José Pavel Zatarain-Mendívil
DE 1 Jennifer Peña-Borrego
DE 2 Jesús Cortez-Hernández
CEF 1 César Favela-Heredia
CEF 3 Joel Murillo-Llanes
AE 3,4 Adrian Canizalez-Roman
CEF 4,5 Nidia Leon-Sicairos
ABE 3 Mario F. Barajas-Olivas
BCEF 6 Fred Morgan-Ortíz
ABEF 7 Dalia Magaña-Ordorica
ACDF 1,7 Francisco Castro-Apodaca

1 Department of Gynecology and Obstetrics, The Women's Hospital, Secretariat of Health, Culiacan, Sinaloa, Mexico
2 Department of Pathology, The Women's Hospital, Secretariat of Health, Culiacan, Sinaloa, Mexico
3 Department of Education and Research, The Women's Hospital, Secretariat of Health, Culiacan, Sinaloa, Mexico
4 School of Medicine, Autonomous University of Sinaloa, Culiacan, Sinaloa, Mexico
5 Department of Research, Pediatric Hospital of Sinaloa, Culiacan, Sinaloa, Mexico
6 Department of Gynecology and Obstetrics, CIDOCS, Autonomous University of Sinaloa, Culiacan, Sinaloa, Mexico
7 School of Nutrition, Autonomous University of Sinaloa, Culiacan, Sinaloa, Mexico

Corresponding Author: Adrian Canizalez-Roman, e-mail: canizalez@uas.edu.mx
Financial support: None declared
Conflict of interest: None declared

Patient: Female, 43-year-old
Final Diagnosis: Unusual clinical course
Symptoms: Severe pain in the lower abdomen, radiating to the genital area with transvaginal bleeding
Clinical Procedure: Speculum examination
Specialty: Obstetrics and Gynecology • Pathology

Objective: Unusual clinical course

Background: In the 18th century, Morgagni described membranous dysmenorrhea as the sudden and complete detachment of the decidua during menstruation. This causes intense and painful contractions of the myometrium, aggravated by the expulsion of tissues produced by the decidualization of the endometrium. It is a rare pathology associated with oral contraceptives, ectopic pregnancies, abortions, and natural cycles, with consequent thickening and endometrial decidualization with molding of the tissue of the uterine cavity of membranous appearance. The definitive diagnosis is made by histopathological examination.

Case Report: A 43-year-old female patient came for urgent consultation for an acute picture of severe pain in the lower abdomen, radiating to the genital area with transvaginal bleeding of 2 h of evolution. She had no significant past medical history. A transvaginal ultrasound was performed and showed an unchanged endometrial cavity. A vaginal examination revealed a foreign body of soft consistency; therefore, a speculum examination was performed, which showed tissue of endometrial origin located in the cervical canal of a reddish spongy texture. The tissue was removed, thus improving the symptomatology, and was sent to the pathological anatomy service for histopathologic diagnosis.

Conclusions: Membranous dysmenorrhea is a rare gynecologic disorder with only a few documented cases. According to other case reports, our patient's case, at age 43 years, was an atypical presentation. The clinical features and association with this pathology allowed the diagnosis and its confirmation by histopathological examination.

Keywords: Abdominal Pain • Case Reports • Endometrial Hyperplasia

Full-text PDF: https://www.amjcaserep.com/abstract/index/idArt/941946

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Background

Dysmenorrhea, or painful menstruation, is a gynecologic entity affecting between 16% and 91% of women of reproductive age. However, its pathophysiology is still incompletely understood [1,2]. Dysmenorrhea is characterized by its occurrence mainly at the beginning of the menstrual cycle. It is divided into primary, colicky, and lower abdominal pain during menstruation and is not associated with other diseases or pathologies. By contrast, secondary dysmenorrhea is usually associated with another pathology inside or outside the uterus [2].

Membranous dysmenorrhea is characterized by the detachment of the endometrium, which can maintain the shape of the uterus [1]. In the 18th century, Morgagni described membranous dysmenorrhea in his work "De sedihus et causis morburum" as an abrupt and complete detachment of the decidua during menstruation, which behaves like a foreign body in the uterine cavity, producing intense and painful myometrial contractions to expel it [3].

We present the clinical case of a patient in her fifth decade of life who had intense abdominal pain in the hypogastrium and transvaginal bleeding, showing the expulsion of a total and complete endometrial form.

Case Report

A 43-year-old female patient presented with no history of dysmenorrhea or pelvic pain and no significant family or past medical history. Obstetric and gynecologic history included menarche at 14 years of age, regular menstrual cycles, 3 pregnancies with cesarean deliveries, and current method of family planning of bilateral tubal occlusion 8 years prior after the last obstetric event. The patient was evaluated at the hospital Emergency Department because she presented with severe hypogastric cramping pain and acute onset of transvaginal bleeding.

Physical examination of the patient revealed a flat abdomen after respiratory movements, absence of skin lesions with a cesarean scar, pain on superficial and deep palpation in the hypogastric region, and no evidence of peritoneal irritation or palpable tumors. Speculum examination revealed a pink vagina with traces of blood and expulsion of tissue (endometrial form) at the external cervix, which was removed with ring forceps. The tissue had the appearance of a complete endometrial cast of the uterine cavity (**Figure 1**). Upon removal of the tissue, the patient experienced pain relief and immediate clinical improvement. The tissue was placed in a formalin flask and sent to the Anatomic Pathology Department for histopathologic diagnosis. Histopathological examination confirmed the microscopic features of membranous dysmenorrhea, showing pre-decidualized endometrial tissue with dilated and congested vessels (**Figure 2**).

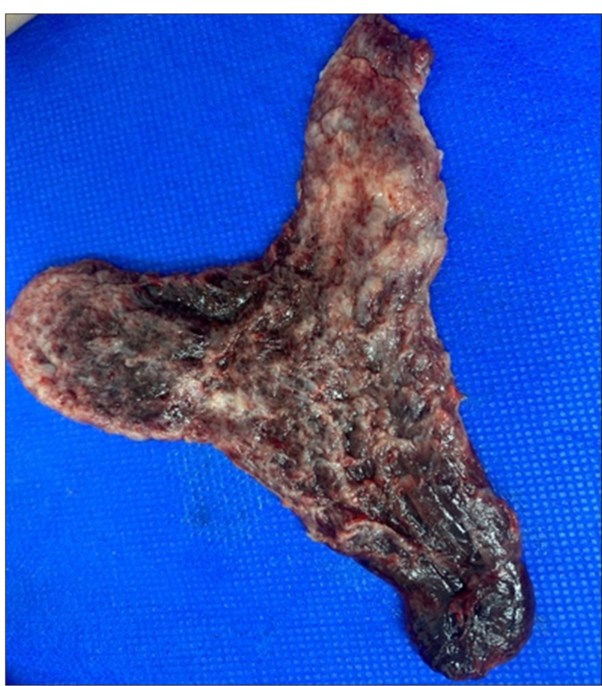

Figure 1. Complete and intact endometrial form with the appearance of an endometrial cavity.

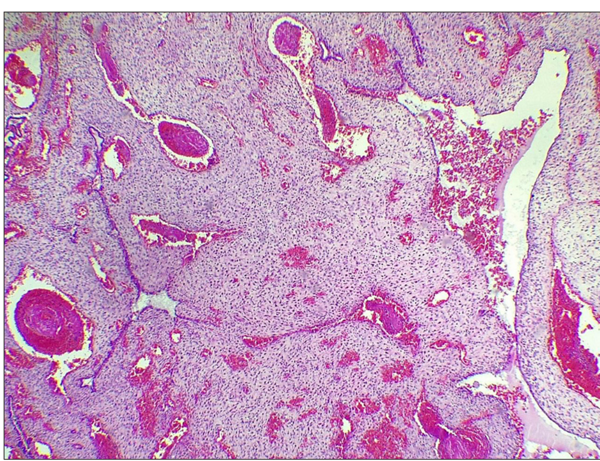

Figure 2. Photomicrograph of pre-decidualized endometrium with dilated and congested vessels. Hematoxylin and eosin staining, 4×.

The patient was discharged from the Emergency Department and referred monthly to the Outpatient Clinic. She experienced no new episodes after 3 consecutive menstrual cycles; therefore, it was decided to release her with open appointments in the Emergency Department, as needed.

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Discussion

Membranous dysmenorrhea is a rare entity with an acute onset clinical picture characterized by severe hypogastric pain and transvaginal bleeding [4,5]. The definitive diagnosis is made by histopathological examination of the expectorated tissue, which shows an endometrium with abundant pre-decidualized stroma, with elongated cells infiltrated by polymorphonuclear cells and glands lined by cuboidal cells without atypia [1,2].

Among the possible causes is the theory of hyperestrogenism since, in some cases, it has been observed that the expulsion of decidualized spongy tissue occurs after using progesterone [6]. Another hypothesis is a generalized increase in progesterone and estrogen secretion, with consequent thickening of the endometrium, incomplete expulsion of the tissue, and overdevelopment of the spiral arteries, leading to vasodilation, followed by vasoconstriction and sloughing of the overdeveloped endometrium [7].

There are few publications on this entity because it is a pathology of low incidence in women over 40 years of age [8]. The case of our patient was an atypical presentation according to other case reports, since she was neither in adolescence nor using hormonal contraceptive methods that could have influenced the onset of membranous dysmenorrhea; however, the clinical characteristics and their association with this pathology allowed the diagnosis and its confirmation by histopathology.

Conclusions

Membranous dysmenorrhea is a rare gynecological pathology. There are few references of cases, and it is associated with oral contraceptive use, ectopic pregnancy, abortions, and natural cycles, with consequent thickening and endometrial decidualization with molding of the uterine cavity tissue with a membranous appearance. Data on cause, incidence, and recurrence are not known with certainty, so when a case is presented, it should be reported to generate information and act based on evidence-based medicine.

Ethics Approval

The study was approved by the Ethics Committee of the Women's Hospital, Secretariat of Health, Culiacan Sinaloa, Mexico (No. 202306-18).

Declaration of Figures' Authenticity

All figures submitted have been created by the authors who confirm that the images are original with no duplication and have not been previously published in whole or in part.

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