International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Sharmila V et al. Int J Reprod Contracept Obstet Gynecol. 2019 Oct;8(10):4094-4096
www.ijrcog.org

pISSN 2320-1770 | eISSN 2320-1789

DOI: http://dx.doi.org/10.18203/2320-1770.ijrcog20194389

Case Report

Spontaneous membranous dysmenorrhea: a rare clinical entity

Vijayan Sharmila[1]*, Arun Babu Thirunavukkarasu[2]

[1]Department of Obstetrics and Gynecology, Indira Gandhi Medical College and Research Institute, Puducherry, India
[2]Department of Pediatrics, All India Institute of Medical Sciences (AIIMS), Mangalgiri, Andhra Pradesh, India

Received: 23 July 2019
Accepted: 09 September 2019

***Correspondence:**
Dr. Vijayan Sharmila,
E-mail: sharu_jipmer@yahoo.co.in

ABSTRACT

Membranous dysmenorrhea is a rare painful clinical condition associated with spontaneous expulsion of the endometrium as an entire piece, retaining the shape of the uterus. Authors report a case of membranous dysmenorrhea in a 36 year old multiparous woman, who was not on any hormonal therapy. She presented with history of menorrhagia for 20 days and severe dysmenorrhea for one day. During her second day of hospital admission, she expelled a fleshy mass resembling a decidual cast. Histopathological examination was consistent with diagnosis of membranous dysmenorrhea. The etiology of membranous dysmenorrhea is not very clear and hence reporting such rare cases may aid in understanding the etiology and pathophysiology of this rare condition.

Keywords: Decidual cast, Decidualized endometrium, Dysmenorrhea, Hormonal therapy, Membranous dysmenorrhea, Thickened endometrium

INTRODUCTION

Membranous dysmenorrhea is a rare clinical entity characterized by shedding of the endometrium in a shape resembling the uterus.[1] It is a clinicopathological term first described by G. B. Morgagni in the 18th century.[2]

This rare condition can cause intense cramping pain as the entire endometrium sloughs off as a decidual cast and passes through an undilated cervix.[3] Histopathological examination is consistent with decidualized endometrial stroma. Exact etiology and pathophysiology is not known, and increased progesterone level has been thought as one of the etiological factors. Very few cases have been reported in literature so far. Membranous dysmenorrhea in all the reported cases has been associated with hormonal therapy. Authors report a rare case of membranous dysmenorrhea in a woman who was not on any hormonal therapy.

CASE REPORT

Authors present a case of 36 years of age, multiparous, sterilized woman who presented to the Gynecology emergency services in our hospital with H/o menorrhagia for 20 days and dysmenorrhea for one day which had intensified over the past few hours. She had no such similar complaints in the past and there was no H/o usage of any hormonal pills or injectables. Her previous cycles were regular, 4/30 days cycle, moderate flow with mild spasmodic dysmenorrhea. She was admitted for further evaluation and management. Her general examination was unremarkable and abdominal examination was normal. Speculum examination revealed bleeding through os. Cervix and vagina were healthy. Bimanual pelvic examination revealed a bulky uterus with no adnexal mass or tenderness. Her hemoglobin was 10.7 g/dl and urine pregnancy test was negative. Other blood and urine investigations were normal. Tran abdominal ultrasound examination revealed bulky uterus and a soft tissue mass

of size 8.4*7.6cm was noted within the endometrial cavity. Bilateral ovaries were normal. The diagnosis of endometrial soft tissue lesion probably a submucous fibroid or endometrial polyp was made. She was prescribed Tranexemic acid and antispasmodics for control of bleeding and pain relief. She continued to experience severe abdominal cramps despite the use of analgesics for two days. This was followed by vaginal expulsion of a soft tissue mass that resembled the shape of uterine cavity (Figure 1). Subsequent to the expulsion of fleshy mass, her vaginal bleeding and dysmenorrhea reduced considerably. She denied previous similar episodes. The tissue was sent for histopathology. The gross specimen consisted of gray-brown tissue mass measuring 22cm × 8cm × 2cm, with irregular surface and small cystic areas within it. Histopathology examination revealed decidualized endometrial stroma, hemorrhage, and acute inflammatory cell infiltrates, consistent with diagnosis of membranous dysmenorrhea.

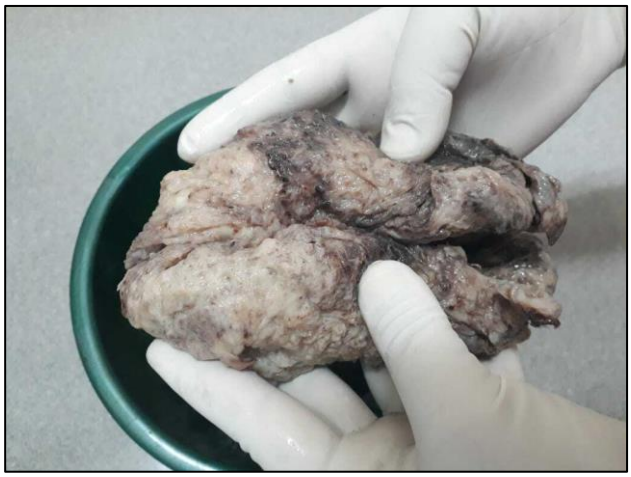

Figure 1: Gross image showing expelled fleshy mass (membranous dysmenorrhea) retaining the shape of uterus.

DISCUSSION

Membranous dysmenorrhea has been mentioned in literature as one of the rare causes of secondary dysmenorrhea.[4] The dysmenorrhea would start at detachment and passage of the entire endometrium as a decidual cast without dissolution, through the undilated cervix.[2] There is no data on the prevalence or incidence of this condition with limited description in current textbooks.[2,5] Its exact etiology is not known and many theories have been proposed for the pathophysiology of decidual cast.[5-9] One theory proposed that it could be due increased production of estrogen and progesterone with partial dissolution of thickened endometrium.[10] Other theories postulated for the cause include increased prostaglandin production and infectious etiology.[3,9] Integrins which mediate cell to cell adhesion have been suggested to play an important role in membranous dysmenorrhea.[10] Hellweg proposed that increased progesterone could be a likely cause, resulting in failure of tissues to undergo dissolution and detachment of decidual cast could be due to focal release of relaxin, comparable with detachment process after delivery.[11]

This condition has been reported in women between 20 and 40 years and in most of the reported cases, membranous dysmenorrhea occurred while the patient was on hormonal therapy therapy such as combined oral contraceptive (COC) pills or progesterones or just after stopping hormonal therapy.[2,3,5,8,9] Authors have reported a rare case of spontaneous occurrence of membranous dysmenorrhea in a woman who was not on any hormonal therapy.

The patient often belongs to reproductive age group presenting with pain, vaginal bleeding and passage of tissue per vaginum that raises differential diagnosis such as abortion, expulsion of decidual cast in abortion, polyp, and rhabdomyosarcoma.[5,8,12] Our patient had severe dysmenorrhea and bleeding per vaginum and was admitted as a case of abnormal uterine bleeding for evaluation. Usually, the diagnosis of this condition is established on histopathological examination of expulsed tissue or endometrial curettings.[1] Decidualized endometrial stroma combined with the macroscopic features confirms the diagnosis. There is lack of scientific evidence for the treatment modalities proposed for this condition that include progesterone therapy, androgen therapy, endometrial curettage, antibiotics, and vasoconstrictors such as ergotamine.[2,5,6] Membranous dysmenorrhea is however reported to have a good prognosis and low recurrence rate. Our patient is on follow up for the past 10 months with no recurrence of the episode.

CONCLUSION

Membranous dysmenorrhea though rare, should be considered as a differential diagnosis in women with complaints of severe dysmenorrhea. Bleeding and passage of tissue per vaginum, especially when pregnancy is ruled out. Authors have reported a rare case of spontaneous membranous dysmenorrhea in a woman who was not on any hormonal therapy.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Veldman J, Van Houdenhove B, Verguts J. Chronic fatigue syndrome: A hormonal origin? A rare case of dysmenorrhea membranacea. Arch Gynecol Obstet. 2009;279(5):717-20.
2. Oliveira PP, Eyng C, Zin RM, Menegassi J. Membranous dysmenorrhea - a forgotten disease. Rev Bras Ginecol Obstet. 2009;31(6):305-10.
3. Rabinerson D, Kaplan B, Fisch B, Braslavski D, Neri A. Membranous dysmenorrhea: the forgotten entity. Obstet Gynecol. 1995;85(5-2):891-2.

4. Ludwig H. Dysmenorrhea. Ther Umsch. 1996;53:431-41.
5. Maciel R, Rodrigues S, Inocêncio G, Saraiva J, Montalvão M. Dismenorreia membranosa: uma rara e desconhecida entidade. Acta Obstet Ginecol Port. 2014;894:402-4.
6. Silveira DS, Jaenickie A, Hollanda ES, Valle RGA, Zimmermmann JB. Dismenorreia membranácea: ainda existe? Relato de Caso Rev HCPA. 2011;31:468-70.
7. García VZ, Tabernero AL, Torres AA, Dávila FM, Haya J. Dismenorrea membranosa. Expulsión endometrial completa. Toko-Gin Pract. 2011;69:182-4.
8. Sen Y, Cimbek EA, Ugras NS. Decidual cast after discontinuation of oral contraceptives use in a young girl. J Pediatr Adolesc Gynecol. 2013;26:e127-129.
9. Appelbaum H. Membranous dysmenorrhea: a complication of treatment for endometriosis. Obstet Gynecol. 2010;116:488-90.
10. Asch RH, Greenblatt RB. Primary and membranous dysmenorrhea. South Med J. 1978;71:1247-9.
11. Hellweg GD. Functional disturbances of the endometrium. In: Fox H, editor. Haines and Taylor Obstetrical and Gynaecological Pathology. 3rd ed. New York: 1987;334-5.
12. Singh V, Talib N, Strickland J. Decidual cast in a girl receiving depot medroxyprogesterone acetate: a case report. J Pediatr Adolesc Gynecol. 2007;20(3):191-4.

Cite this article as: Sharmila V, Thirunavukkarasu AB. Spontaneous membranous dysmenorrhea: a rare clinical entity. Int J Reprod Contracept Obstet Gynecol 2019;8:4094-6.