



COMPLICATIONS OF CRYPTOMENORRHEA: A NARRATIVE REVIEW

Ipsita Mohapatra*

Associate Professor, Department of Obstetrics & Gynaecology, All India Institute of Medical sciences, Kalyani, India. *Corresponding Author

Subha Ranjan Samantaray

Associate Professor, Department of Obstetrics & Gynaecology, All India Institute of Medical sciences, Kalyani, India.

ABSTRACT

Cryptomenorrhea, also known as hidden menstruation or concealed menstruation, is a condition characterized by the presence of menstrual bleeding that is obstructed from flowing out of the vagina. This narrative review aims to explore the complications associated with Cryptomenorrhea and their potential consequences on a woman's health. Through an extensive analysis of available literature, this review provides a comprehensive overview of the complications and their management strategies, emphasizing the importance of early diagnosis and appropriate intervention.

KEYWORDS :**INTRODUCTION:**

Cryptomenorrhea is a relatively rare condition with an incidence of about 0.05%-1% [1]. In this condition, the menstrual blood accumulates in the uterus (hematometra) or vagina (hematocolpos) and sometimes in the fallopian tubes (hematosalpinx) due to various anatomical or functional obstructions in the genital tract. During the embryological period, a fold of the urogenital sinus gives rise to the lateral part of the hymen.

The posterior portion develops from the Mullerian duct [2]. These two parts fuse and at about 8th week of gestation it ruptures to remain only as a mucous membrane covering at the entrance of vagina. Failure of these events results in imperforate hymen which is the most common cause of cryptomenorrhea.

Other important causes of cryptomenorrhea are transverse vaginal septum, vaginal agenesis and very rarely pelvic trauma [3].

While the condition may be asymptomatic in some cases, in some cases it can lead to some severe complications, posing challenges to women's reproductive health and overall well-being. Understanding these complications is crucial for healthcare professionals to offer timely and effective management strategies to patients with cryptomenorrhea.

METHODS:

A literature search was conducted using electronic databases, including PubMed and Google Scholar, to identify relevant studies published in English. The keywords used for the search included "cryptomenorrhea," "hidden menstruation," "concealed menstruation," and "complications." Articles reporting complications of cryptomenorrhea and their management were included for analysis.

Complications of Cryptomenorrhea:**1. Hematometra:**

The accumulation of menstrual blood in the uterus can lead to hematometra; a condition characterized by accumulation of blood, distension and increased pressure within the uterus. Symptoms include severe abdominal pain, dysmenorrhea, and a palpable mass on physical examination. Treatment includes correction at the level of obstruction to reconstruct the outflow tract.

2. Pyometra:

In some cases, cryptomenorrhea can lead to the development of pyometra, an infection of the uterus caused by the accumulation of pus. Symptoms include fever, pelvic pain, and abnormal vaginal discharge. Antibiotics, drainage of the infected fluid, and surgical intervention may be necessary for managing pyometra.

3. Hydrocolpos and hydrometrocolpos:

Sometimes the cervical and vaginal secretions get accumulated behind the level of obstruction leading to collection of these secretions in the vagina or the uterus [2]. Treatment involves releasing the obstruction and antibiotics.

4. Endometriosis:

Retained menstrual blood can create pressure resulting in backward flow of the collected menstrual blood. This blood can flow through the fallopian tubes into the peritoneal cavity and get deposited in the dependent portions of the abdominal cavity. This collected blood can provide a medium for endometrial tissue to implant and grow outside the uterus, leading to endometriosis. This condition can cause chronic pelvic pain, dyspareunia, and infertility. Treatment options for endometriosis associated with cryptomenorrhea include hormonal therapy, laparoscopic excision of endometrial implants, and fertility preservation techniques.

5. Adenomyosis:

Cryptomenorrhea may contribute to the development of adenomyosis, a condition characterized by the presence of endometrial tissue within the uterine wall. Symptoms include heavy and painful periods, pelvic pain, and an enlarged uterus. Management options include hormonal therapy, pain management, and in severe cases, hysterectomy.

6. Retention of urine:

Acute urinary retention is rare in the females. It may be seen when obstructive mass or lesion like a transverse vaginal septum or imperforate hymen causes collection of blood. The collected blood in the vagina leads to vaginal distension resulting in stretching of the urethra and finally urinary retention [4]. Treatment includes correction of the obstruction.

7. Pelvic adhesions:

Endometriosis caused due to collected blood in the peritoneal cavity may further lead to either flimsy or dense adhesions between the various intraperitoneal structures.

8. Pelvic inflammatory disease:

The infection and inflammation of the uterus and tubes may be caused as stagnant blood is a rich culture media for growth of infection [5]. The infection may be transmitted from neighboring structures like the appendix. Treatment is antibiotics in line of the infective organism and clearing of the collected blood.

9. Infertility:

Infertility may be a late sequel of cryptomenorrhea as pelvic adhesions and pelvic inflammatory disease are known causes of infertility.

10. Raised CA-125 CA 19.9 levels:

The rise in CA-19.9 may be due to tissue inflammation or obstruction in the outflow pathway[2]. There is expression of CA-125 in the desquamated endocervical epithelium, which can explain the rise in this tumor marker [6].

11. Acute abdomen:

Patients of cryptomenorrhea may present with symptoms of acute abdomen, rectal tenesmus along with altered bowel habits [7].

12. Intestinal obstruction:

Rarely patients of cryptomenorrhea may present with intestinal obstruction [1] as a late complication of endometriosis developing out

of retrograde menstruation.

13. Hydronephrosis and kidney failure:

Very rarely due to the pressure of accumulated blood, obstruction in the urinary path may occur resulting in hydronephrosis and in severe conditions may result in kidney failure [8].

13. Psychological and Emotional Impact:

Dealing with cryptomenorrhea and its associated complications can have a significant psychological and emotional toll on affected individuals. Feelings of frustration, embarrassment, and reduced quality of life may arise. Counseling, support groups, and psychological interventions can play a crucial role in addressing these challenges.

CONCLUSION:

Cryptomenorrhea can lead to various complications that may significantly impact a woman's reproductive health and overall well-being. Early diagnosis, appropriate management, and addressing the psychological aspects of this condition are crucial for improving outcomes and the quality of life for affected individuals. Further research is needed to enhance our understanding of cryptomenorrhea and develop more targeted treatment approaches.

REFERENCES:

1. Bansal R, Sneha P: Cryptomenorrhoea due to imperforate hymen: a case report . Int J Reprod Contracept Obstet Gynecol. 2019, 7:2946-8. 10.18203/2320-1770. ijrcog20193077
2. Buyukbayrak EE, Ozyapi AG, Karsidag YK, Pirimoglu ZM, Unal O, Turan C. Imperforate hymen: a new benign reason for highly elevated serum CA 19.9 and CA 125 levels. *Arch Gynecol Obstet.* 2008;277(5):475-477. doi:10.1007/s00404-007-0493-3
3. Mazhar SB, Mumtaz J, Saeed Q, Nawaz F. Cryptomenorrhea Secondary to Past Childhood Pelvic Trauma in Young Adolescent Girls. *Fertility & Reproduction.* 2019 Sep;01(03):119-21.
4. Anselm OO, Ezegwui UH. Imperforate hymen presenting as acute urinary retention in a 14-year-old nigerian girl. *J Surg Tech Case Rep.* 2010;2(2):84-86. doi:10.4103/2006-8808.73623
5. Agarwal M, Sinha S, Sinha U, Dureja S, Roy I. Cryptomenorrhea Due to Imperforate Hymen Leading to a Massive Hematocolpos. *Cureus.* 2022;14(9):e29038. Published 2022 Sep 11. doi:10.7759/cureus.29038
6. Satoshi I, Fumitake G (1999) Elevation of serum CA19-9 levels in benign conditions. *Int Med* 38(11):840–841
7. Lardenoije C, Aardenburg R, Mertens H. Imperforate hymen: a cause of abdominal pain in female adolescents. *BMJ Case Rep.* 2009;2009:bcr08.2008.0722. doi:10.1136/bcr.08.2008.0722
8. Loscalzo IL, Catapano M, Loscalzo J, Sama A. Imperforate hymen with bilateral hydronephrosis: an unusual emergency department diagnosis. *J Emerg Med.* 1995; 13(3):337-339. doi:10.1016/0736-4679(95)00008-x