

Heavy menstrual bleeding in women with inherited bleeding disorders

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Abstract

Heavy menstrual bleeding (HMB) is the commonest bleeding symptom among women with inherited bleeding disorders (IBD). Since HMB starts at the very onset of menarche and continues throughout the reproductive life, the health related quality of life of these women is affected and they are at an increased risk of developing iron-deficiency anemia. Because of the entrenched stigma and taboos, women and girls are often reluctant to discuss the problem of HMB within their families and do not seek medical advice. Increased awareness and multidisciplinary management approach for the management of these women are essential in ensuring an optimal outcome. It is important to take a careful history and undertake a thorough gynecological assessment to exclude other underlying/concomitant causes of HMB. Iron supplementation is essential. Strategies for decreasing menstrual blood flow are similar to those used for HMB in general with the addition of desmopressin and replacement therapy and the exclusion of non-steroidal anti-inflammatory drugs. Tranexamic acid and/or hormonal intervention are usually recommended as first-line therapy. Treatment choice should be individualized taking into account whether the woman wishes to preserve her fertility, if she requires contraception, the type of IBD, the severity of bleeding, and her social and religious background as well as acceptability and availability of the treatment options.

KEYWORDS

bleeding disorders, hormonal therapy, heavy menstrual bleeding, psychosocial, women

Advances in clinical care and research in the field of inherited bleeding disorders (IBD) have focused mainly on male patients with haemophilia. This has overshadowed other bleeding disorders, and the recognition that women are also affected by bleeding disorders such as von Willebrand disease or other rare bleeding disorders and the impact of the disease on their daily life.¹ Similarly, bleeding risks in carriers of haemophilia are often overlooked.

Management of a bleed in women with IBD is not different from men when it comes to surgery, epistaxis, muscle and joint bleed but menstruation, pregnancy and childbirth are unique haemostatic challenges.

Up to 90% of women with IBD have heavy menstrual bleeding (HMB).¹ HMB may be the only bleeding symptom in up to 20% of adolescents.² More than 70% of women with VWD suffer from HMB, and half of them suffer from dysmenorrhoea.³ The duration of menstruation is reported to be significantly longer and episodes of flooding significantly more common in patients with IBD compared to the general population.⁴ Menstrual blood loss is reported to be heavy throughout menstruation in women with IBD women whereas women without IBD tend to have the heaviest bleeding in the first 3 days.⁴ There is also a risk of bleeding with ovulation leading to recurrent mid-cycle pain or more serious complications such as large

haemorrhagic ovarian cysts or acute abdomen with a haemoperitoneum.³ In one study, women with VWD also had a higher prevalence of other gynaecological conditions such as fibroids and endometriosis, possibly more symptomatic with bleeding due to their bleeding tendency.⁵

Since HMB starts at the very onset of menarche and continues throughout the reproductive life, the health-related quality of life (HRQoL) of these women is affected and they are at an increased risk of developing iron-deficiency anaemia.

Social taboos towards menstruation exist across all cultures. Because of entrenched stigma and taboos, menstruation is rarely discussed within families or at school and menarche often arrives unexpectedly for girls with little or no knowledge of why they are bleeding. A UNICEF study showed that one in three girls in south Asia had no knowledge of menstruation before their first period, and 48% of girls in Iran thought that menstruation was a disease.⁶ Adolescence can be a daunting period for young girls with many physical, sexual, cognitive, social and emotional changes; heavy menstruation in such situation can be a devastating additional challenge.

Menstruation in women with VWD has a negative impact on life activities.³

Heavy menstrual bleeding has a larger impact on HRQoL in women with inherited bleeding disorders compared with women with normal haemostasis. For the adequate assessment of disease-specific HRQoL, standardized and validated instruments are necessary. Within the von Willebrand disease (VWD)-QoL questionnaire, a disease-specific questionnaire for patients with VWD, a specific dimension 'menstruation' is included for women. There is still a need of a disease-specific instrument for an overall assessment of HRQoL in women with bleeding disorders.⁷

A qualitative study on the impact of HMB on women has identified frustration, irritation and inconvenience, pain associated with bleeding, feeling self-consciousness about odour and social embarrassment. Most women developed complex strategies to prevent such events occurring and many reported that they avoided going out, when they were menstruating.⁸

Women and girls are often reluctant to discuss the problem of HMB with their physicians and do not seek for help.¹ In addition, IBDs are familial; thus, most of women from same families suffer from HMB and excessive bleeding during menstruation is considered as normal. Women are expected to cope and often suffer in silence. Only four of 10 women who perceive that they have excessive menstrual blood loss consult their doctor about it.⁸

Often considered a shameful, dirty, female weakness, the secrecy surrounding menstruation has permeated every aspect of society, nurturing superstitions and taboos that are passed on between generations. In many communities, menstruating girls and women are still banned from kitchens, crop fields or places of worship. Menstrual taboos frequently call for exclusion from social and religious activities, school, university and work. Sexual life is affected, as is women's status within the family.⁹⁻¹¹

There still remain several unanswered issues in the diagnosis and management of HMB in these women. The treatment of HMB is usually medical, but there is lack of prospective data on the efficacy of commonly used medical therapies in these women. A multidisciplinary approach in the management of these women is essential in ensuring an optimal outcome.³

It is important to take a careful history and undertake a thorough gynaecological assessment to exclude other underlying causes of HMB such as polyps, uterine fibroids or malignancy.¹² Iron supplementation is of paramount importance.

Strategies for decreasing menstrual blood flow are similar for those with heavy menses in general with the addition of desmopressin and replacement therapy and the exclusion of non-steroidal anti-inflammatory drugs. Tranexamic acid and hormonal intervention are usually recommended as first-line therapy.¹³ However, there are patient-specific considerations for many of these agents, and they must be incorporated into shared decision-making when selecting the most appropriate treatment.¹⁴

Treatment choice decisions should take into account whether a woman wishes to preserve her fertility, if she requires contraception, the type of IBD, the severity of bleeding, and the social and religious background.

Hormonal intervention is indicated for those who want to preserve fertility but not planning pregnancy in the immediate future.¹⁵ Studies assessing hormonal therapies in women with IBD are sparse.

The levonorgestrel intrauterine system (LNG-IUS) has been shown to be effective and well accepted by these women.¹⁶ LNG-IUS is the most effective medical treatment for HMB.^{16,17} It also provides effective contraception for 5 years with very low failure rates of <0.1%. Discontinuation rate is 17%-20% due to menstrual irregularity and spotting, usually in the first 6 months after insertion.^{16,18,19} Expulsion rates among women without an inherited bleeding disorder have been reported to be approximately 5%-10%¹⁸ and 8% in women with IBD.¹⁶ In a small retrospective study, three expulsions and two device malpositions were reported among 20 women with inherited bleeding disorders.²⁰ Prolonged therapy with tranexamic acid may be beneficial in preventing expulsion among these women as is the use of specific haemostatic therapies directed at controlling bleeding around the time of LNG-IUS insertion.²¹

Combined hormonal contraceptives CHCs (combined oral contraceptive pills, transdermal patches or vaginal ring) are also effective in reducing menstrual loss, providing women an effective contraceptive and a regular menstrual cycle.¹⁵ They also suppress ovulation preventing the ovulation bleeding complications. CHCs can be taken as 21 active days, but they are now increasingly used as continuous extended treatment for up to 12 months. This approach provides effective contraception with no added risks and reduces menstrual bleeding episodes. However, some women do experience troublesome breakthrough bleeding episodes.²²

Progesterone only pills, depot medroxyprogesterone injections and sub-dermal contraceptive implants can also reduce menstrual loss but often associated with irregular bleeding pattern.

Some IBDs are also associated with an increased risk of thromboembolic event as in afibrinogenaemia. This risk must be taken into consideration when choosing hormonal therapy, and factor replacement may be a better choice. Factor replacement therapy may also be required in women with severe IBD not responding to hormonal therapies alone or when pregnancy is planned and hormonal treatments are discontinued.

Patients' compliance is very important for an effective response with any medical treatment. In Middle East region and Arab countries, there are cultural reluctance, fear of side effects, fear of cancer and misbelief in hormonal therapies. Education of girls and women is urgently required for adherence to the treatment.

Strategies for decreasing menstrual blood flow in adolescents require specific considerations for many of the treatment options, and they must be incorporated into shared decision-making when selecting the most appropriate treatment.²³

Surgical options are appropriate for women who do not wish to preserve fertility and have completed their family. Endometrial ablation is a minimally invasive procedure, suitable for women with no significant pelvic pathology. It has been shown to be effective in women with IBD with a significant reduction in menstrual loss, improvement in haemoglobin and HRQoL.²⁴

Hysterectomy provides a definitive treatment for HMB and appropriate for women with pelvic pathology such as large uterine fibroids. It is a major intervention with operative and anaesthetic risks. Perioperative bleeding is the commonest complication and reported in 1%-3% of all hysterectomies. Women with IBD have even higher operative bleeding risk and need for blood transfusion.²⁵ Moreover, this intervention could have negative psychological impact on women.^{26,27}

There is urgent need to discuss the multidisciplinary management of HMB through interactive clinical case presentations, provide haematological and gynaecological point of views and highlight the psychosocial impact on the women.

DISCLOSURES

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REFERENCES

- McIntock C. Women with bleeding disorders: clinical and psychological issues. *Haemophilia*. 2018;24(S6):20-24.
- Chi C, Pollard D, Tuddenham EGD, Kadir RA. Menorrhagia in adolescents with inherited bleeding disorders. *J Pediatr Adolesc Gynecol*. 2010;23:215-222.
- Kadir RA, Chi C. Women and von Willebrand disease: controversies in diagnosis and management. *Semin Thromb Hemost*. 2006;32(6):605-615.
- Kadir RA, Economides DL, Sabin CA, Pollard D, Lee CA. Assessment of menstrual blood loss and gynaecological problems in patients with inherited bleeding disorders. *Haemophilia*. 1999;5(1):40-48.
- Kirtava A, Drews C, Lally C, Dilley A, Evatt B. Medical, reproductive and psychosocial experiences of women diagnosed with von Willebrand disease receiving care in haemophilia treatment centres: a case-control study. *Haemophilia*. 2003;9:292-297.
- The Lancet Child & Adolescent Health. Normalising menstruation, empowering girls. *Lancet Child Adolesc Health*. 2018;2:379.
- von Mackensen S. Quality of life in women with bleeding disorders. *Haemophilia*. 2011;17(Suppl1):33-37.
- Matteson KA, Clark MA. Questioning our questions: do frequently asked questions adequately cover the aspects of women's lives most affected by abnormal uterine bleeding? Opinions of women with abnormal uterine bleeding participating in focus group discussions. *Women Health*. 2010;50:195-211.
- Kadir RA, Edlund M, Von Mackensen S. The impact of menstrual disorders on quality of life in women with inherited bleeding disorders. *Haemophilia*. 2010;16:832-839.
- Guterman M, Mehta P, Gibbs M. Menstrual taboos among major religions. *Internet J World Health Soc Polit*. 2007;5:1-7.
- Bhartiya A. Menstruation, religion and society. *Int J Social Sci Human*. 2013;3:523-527.
- Maybin JA, Critchley HO. Medical management of heavy menstrual bleeding. *Women Health*. 2016;12:27-34.
- Edlund M. Nonhormonal treatments for heavy menstrual bleeding. *J Womens Health*. 2011;20(11):1645-1653.
- O'Brien SH. Evaluation and management of heavy menstrual bleeding in adolescents: the role of the hematologist. *Blood*. 2018;132:2134-2142.
- James AH, Kouides PA, Abdul-Kadir R, et al. Willebrand disease and other bleeding disorders in women: consensus on diagnosis and management from an international expert panel. *Am J Obstet Gynecol*. 2009;201:12.e1-8.
- Chi C, Huq FY, Kadir RA. Levonorgestrel-releasing intrauterine system for the management of heavy menstrual bleeding in women with inherited bleeding disorders: long-term follow-up. *Contraception*. 2011;83:242-247.
- Davies J, Kadir RA. Heavy menstrual bleeding: an update on management. *Thromb Res*. 2017;151(S1):70-77.
- Joshi R, Khadlikar S, Patel M. Global trends in use of long-acting reversible and permanent methods of contraception: seeking a balance. *Int J Gynaecol Obstet*. 2015;131(S1):S60-S63.
- Stewart A, Cummins C, Gold L, Jordan R, Phillips W. The effectiveness of the levonorgestrel-releasing intrauterine system in menorrhagia: a systematic review. *Br J Obstet Gynaecol*. 2001;108:74-86.
- Rimmer E, Jamieson MA, James P. Malposition and expulsion of the levonorgestrel intrauterine system among women with inherited bleeding disorders. *Haemophilia*. 2013;19:933-938.
- Kadir RA, Chi C. Levonorgestrel intrauterine system: bleeding disorders and anticoagulant therapy. *Contraception*. 2007;75: S123-S129.
- Wright KP, Johnson JV. Evaluation of extended and continuous use oral contraceptives. *Ther Clin Risk Manag*. 2008;4:905-911.

23. Matteson KA, Rahn DD, Wheeler TL, et al. Nonsurgical management of heavy menstrual bleeding: a systematic review. *Obstet Gynecol.* 2013;121:632-643.
24. Huq FY, Al-haderi M, Kadir RA. The outcome of endometrial ablation in women with inherited bleeding disorders. *Haemophilia.* 2012;18:413-420.
25. James A, Myers E, Cook C, Peitrobon R. Complications of hysterectomy in women with von Willebrand disease. *Haemophilia.* 2009;15:926-931.
26. Darwish M, Atlantis E, Mohamed-Taysir T. Psychological outcomes after hysterectomy for benign conditions: a systematic review and meta-analysis. *Eur J Obstet Gynecol Reprod Biol.* 2014;174:5-19.
27. Raza N, Waqas A, Jamal M. Post-operative anxiety, depression and psychiatric support in patients undergoing hysterectomy: a cross sectional survey. *J Pak Med Assoc.* 2015;65(4):443-445.

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