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Why do Women with Heavy Menstrual Bleeding End in Hysterectomy?

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Abstract

Objectives: Heavy menstrual bleeding (HMB) is one of the commonest referrals to hospital-based gynaecological services from primary care in the UK. Several medical and surgical uterine sparing modalities are currently performed in modern gynaecology for women presenting with HMB. This has led into much less women needing hysterectomy for this indication. In order to identify the reasons which led to hysterectomy in women referred with HMB, this study was conducted.

Study design: A retrospective electronic case record review study for women referred with HMB and needed hysterectomy.

Material and Methods: A retrospective study was conducted at South Tyneside and Sunderland hospitals between January 2016 and December 2018.All women who had hysterectomy during this period were reviewed and those who had it for HMB were included in the study. Data was collected electronically on an excel spread sheet. Reasons for hysterectomy and histological findings of the removed uterus were identified.Results were analyzed using a simple statistical tool.

Results: 935 women had hysterectomy during the period of the study and only 145 women had hysterectomy for HMB and were included in the study. The commonest cause for hysterectomy was failure of the intrauterine system (IUS) followed by women`s choice for definitive treatment (complete amenorrhoea).Other causes such as failed endometrial ablation (EA), history of chronic pelvic pain or known endometriosis & the presence of uterine fibroid/adenomyosis on ultrasound scan were also identified. The commonest histological finding at hysterectomy was benign leiomyoma with or without adenomyosis.

Conclusions: HMB is more likely to lead to hysterectomy when women have fibroids, adenomyosis, chronic pelvic pain or known to have endometriosis where other uterine medical and surgical sparing modalities might fail. Woman`s preference for complete amenorrhea was found to be the second common factor leading to hysterectomyfollowing failed IUS. These factors should be considered when counselling women with HMB to reduce their length of suffering prior to definitive treatment.

Article highlights

- One of the common gynaecological referrals to secondary care hospitals from GPs in the UK is heavy menstrual bleeding (HMB).
- HMB can cause physical, emotional and social issues affecting the woman`s quality of life and wellbeing.
- Many women undergo different medical and surgical uterine sparing modalities prior to hysterectomy which can cause increased suffering and cost, by prolonging the treatment journey
- Certain gynaecological pathologies can predispose to hysterectomy in HMB such as fibroids, adenomyosis and endometriosis
- Correlation between symptoms, investigations and histological findings at hysterectomy could aid the clinician to identify the reasons which might lead to hysterectomy in order to support the counselling process in the future towards hysterectomy in women with HMB.

Key words: Heavy Menstrual Bleeding; Hysterectomy

Authorship of correspondence: I confirm that I have designed the study, completed the data collection with colleagues, prepared the paper and completely wrote it.

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Introduction

HMB is a common condition in women of reproductive age group, accounts to 20% of referrals to outpatient Gynecology in the UK.The National Institute for Health and Care Excellence in the UK (NICE) defines HMB as excessive menstrual blood loss, which interferes with a woman's physical, social, emotional and/or material quality of life occurring alone or in combination with other symptoms [1].

In modern gynaecology, women with HMB are usually offered uterine sparing medical and surgical modalities to avoid hysterectomy, such as EA and the Mirena intrauterine system (IUS) (Levonorgestrel 20 mcg/24 hours, Bayer Healthcare Pharmaceuticals). Most women treated with the IUS do not require a hysterectomy according to the ECLIPSE trial [2]; where only 1:5 women would need a hysterectomy after 5 years of treatment. The same applies to endometrial ablation (EA) which has changed the management of HMB significantly mainly by the development of second-generation ablation techniques which can achieve a very high success rate avoiding hysterectomy [3,4].

The most frequently performed procedure in gynaecology is hysterectomy [5]. It is more invasive than theMirena IUS (Levonorgestrel IUS 20 micrograms/24 hours IUS, Bayer Health Care Pharmaceuticals) and EA, but it represents the most definitive treatment for HMB [6]. Hysterectomy being a more invasive intervention, it has been suggested that it should be reserved for women where other interventions have failed or contraindicated [5].

Hysterectomy can be associated with physical and emotional complications as well as social and economic costs. In the 1980s, 60% of referrals for HMB ended with hysterectomy [5]. Most cases of HMB are benign, with much less incidence of endometrial hyperplasia with atypia or endometrial cancer [5].

Despite the recent advances in modern gynaecology aiming to treat women with HMB without needing hysterectomy, several women still end their HMB journey with hysterectomy. We aim to understand the reasons which led to hysterectomy and correlate this to the presenting symptoms, investigations & histology of the removed uterus.

Material and methods

All women referred to South Tyneside and Sunderland hospitals from January 2016 till December 2020 with HMB who needed hysterectomy were reviewed& data was collected electronically on an excel spread sheet. Reasons for hysterectomy were identified by reviewing symptoms at presentation, investigations &histology of the removed uterus in addition to the medical and surgical uterine sparing modalities offered. Results were analysed using a simple statistical tool.

Ethical approval was not required for this study being a retrospective case review study.

Results

All hysterectomies during the period of the study were reviewed (935 cases). 145 women had hysterectomy for HMB and were included in the study. Hysterectomy for other reasons such as prolapse, ovarian masses and premalignant or malignant conditions were excluded.

Age ranged between 31-56 with a mean of 45. The duration of HMB ranged between 10 months and 11 years with a mean of 3years. The majority of hysterectomies were performed laparoscopically (72/145, 50%), whereas 56/145 women had abdominal hysterectomy (38%) and the rest had vaginal hysterectomy (17/145, 12%). 53 women had symptoms suggestive of endometriosis including chronic pelvic pain, dysmenorrhoea, and dyspareunia. 80 women had uterine fibroids >3 cm size on ultrasound scan and only 6 women were found to have adenomyosis prior hysterectomy (Table 1).

Indication for hysterectomy	No. of patients (total 145)	%
Woman`s choice for definitive treatment	90	62
Failed EA	63	43
Failed IUS	82	57
Failed both IUS & EA	13	9
Fibroid >=3 cm on ultrasound scan	80	53
Chronic pelvic pain, dysmenrorrhoea/dyspareunia or known endometriosis	53	36.5
Adenomyosis on ultrasound scan	6	4

Table 1: Indications for hysterectomy

Type of medical management	No. of patients	%
Mefenamic/Traneamic acid	42	30
Combined oral contraceptive pill	10	6.9
Progesterone only pill	18	12.4
Mirena IUS	95	65.5
Depo provera injection	11	7.5
Oral progestogens	43	29.6
Implanon	5	3.4
Gonadotrophin releasing hormone analogue	13	9
Esmya	5	3.4

Table 2: Medical management of HMB

Histology	No. of patients (total 145)	%
Fibroid >=3 cm	64	44
Adenomyosis	20	14
Both fibroid & adenomyosis	24	16.6
Endometriosis	3	2
Leiomyosarcoma	1	0.7
Normal histology	33	22.7

Table 3: Histology of the removed uterus

101 women (70%) had combination of different options of medical treatment prior to hysterectomy (Table 2) with failed IUS in 57% of patients,43%of women had failed EA& 9% had failed both options. The commonest performed EA was the Novasure (Bioplar Radiofrequency ablation-Hologic) (Table 1). The commonest Indication for hysterectomy was found to be failed IUS/EA followed by women`s choice for complete amenorrhoea (definitive surgery) which was identified in 62% of cases (Table 1). Histology of the removed uterus confirmed the majority of women had a benign fibroid with or without adenomyosis (Table 3).

Discussion

Many women are referred annually to secondary care hospitals in the UK with HMB. Most of them are usually offered medical and surgical uterine sparing modalities prior to offering hysterectomy.

Medical and surgical uterine sparing modalities to treat HMB have proven to be very effective including the Levonorgestrel IUS and different types of endometrial ablation [2-4].

Hysterectomy is a major gynaecological surgical procedure and is still practised in the context of HMB despite the high success rate of uterine sparing medical and surgical modalities. In order to understand the reasons which led those patients to have hysterectomy for HMB, we conducted this study.

Women`s symptoms of chronic pelvic pain, dysmenorrhoea and dyspareunia or known endometriosis & adenomyosis can predict that the surgical and medical uterine sparing modalities for HMB might not completely settle these symptoms and hysterectomy can provide significant and long-lasting reduction in pain symptoms [7]. In addition, dysmenorrhoea was identified as one of the factors which might predict failure of EA [8].

EA might not improve pelvicpain related to endometriosis and can even make chronic pelvic pain worse if it was caused by adenomyosis especially when the adenomyosis is deep [9]. We identified that more than half of the women who underwent hysterectomy for HMB had symptoms suggestive of endometriosis/adenomyosis and they were offered medical and surgical uterine sparing modalities prior to hysterectomy. In fact, 46 women (32%) had adenomyosis/ endometriosis on histology of the removed uterus (Table 3).

On the other hand, the presence of uterine fibroid(s) >3 cm on ultrasound scan (80/145, 53%) was found to be associated with women needing hysterectomy for HMB where nearly 60% of the identified women had histological evidence of fibroid with or without adenomyosis (Table 3). The presence of uterine fibroids with or without adenomyosis can present a risk to the success of endometrial ablation [8-11].

In addition, the Levonorgestrel IUS may not help to treat fibroids associated with HMB and it has been reported that most hysterectomies performed after failed Levonorgestrel IUS used to treat HMB, contained uterine fibroids [12]. We had 82 cases of failed IUS, 63 cases of failed endometrial ablation and 13 cases where both modalities failed (Table 1).

We identified that women`s choice for definitive treatment was one of the commonest indications for hysterectomy where 62% of women asked for hysterectomy aiming for complete amenorrhoea (Table 1). We should keep in mind that other medical and surgical uterine sparing modalities might not guarantee complete amenorrhoea. The HEALTH study; a randomisation trial which compared laparoscopic supracervical hysterectomy (LASH) and EA for the management of HMB concluded that LASH resulted in significantly higher satisfaction and better quality of life compared with EA [13].

LASH led to a greater improvement in menstrual blood loss, cyclical period-like pain, and dyspareunia, without incurring a higher risk of postoperative complications or [13].

Conclusions

Women still need hysterectomy for HMB despite the high effectiveness of modern medical and surgical uterine sparing modalities. The commonest pathology identified in women needing hysterectomy is benign uterine fibroid with or without adenomyosis. Failed IUS followed by women`s choice for complete amenorrhoea were the leading indications for hysterectomy in this series. Other causes such as chronic pelvic pain, dysmenorrhoea or known endometriosis and failed EA were also identified. These parameters when present in women with HMB, should be considered as indicators for increased likelihood of hysterectomy in order to direct the counselling process towards hysterectomy rather than uterine sparing modalities to reduce women`s suffering where uterine sparing modalities might fail.

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