



CROSS-SECTIONAL STUDY ON HEALTH SEEKING BEHAVIOURS OF PERIMENOPAUSAL WOMEN SUFFERING FROM PERUMBADU (MENNORRHAGIA)

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ABSTRACT

Menorrhagia is a major cause of gynaecological problem that affect women of reproductive age group living in both developed and developing countries. It was called by several terminologies in local vernacular terms whereas according to siddha system of medicine it was termed as “perumbadu”. Menorrhagia is defined as bleeding in excess of 80 ml per menstrual cycle when measured objectively although among women who present with the complaint of significant heavy menstrual bleeding, fewer than 50% have been objectively shown to have >80 ml of menstrual loss. Despite rarely being life-threatening, menorrhagia has significant effects on personal, social, family, and work life of women and thereby reduces their quality of life. Women describe the loss or reduction of daily activities as more important than the actual volume of bleeding. A cross-sectional study was conducted among 200 participant’s women under the age group between 35 - 45 years in the Out - Patient Department at Arignar Anna Govt. Hospital of Indian Medicine, Chennai, Tamil Nadu, India for the period of three months. Data collection through investigation on standard pattern of questionnaires. The data were dealt with high level of confidence. Results of present investigation clearly depicts that the prevalence of heavy menstrual flow was experienced at 51%. Heavy menstrual bleeding was higher in women who were obese (40%), who had hyperthyroidism (30%), hypertension (27.5%), uterine fibroid (86.14%), and hereditary etiology (68.32%). In this systematic investigation we present information relating to the prevalence and primary factors that influence the condition of menorrhagia. Further these evidence based data provide reliable information pertain to the comorbid factors such as obesity, hyperthyroidism, hypertension, uterine fibroid, and hereditary etiology were more severely influencing menorrhagia.

KEY WORDS: *Menorrhagia, Perumbadu, Obesity, Hyperthyroidism, Hypertension, Hereditary etiology*

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1. Introduction

Excessive menstrual loss, or menorrhagia, is a significant health care problem in the developed world. Even in western countries 5% of women of reproductive age seek help for this symptom annually [1]; by the end of reproductive life, the risk of hysterectomy (primarily for menstrual disorders) is 20% [2]. Objectively, menorrhagia is defined as a menstrual blood loss of 80 mL per month. Population studies have shown that this amount of blood loss occurs in 10% of the population [3]. Yet nearly a third of all women consider their menstruation to be excessive [4]. This symptom thus creates a substantial workload for health services.

Heavy menstrual bleeding (HMB) is a relatively uncommon complaint in younger women, yet has a prevalence of one in three women in the perimenopausal period [5]. The pathophysiology of HMB may be discussed in the context of both ovulatory and anovulatory cycles. Ovulatory HMB is heavy, regular menstrual bleeding occurring between 21 and 32 days, whereas in anovulatory cycles heavy, often prolonged bleeding occurs 35 or more days apart [6]. Adolescents and young women presenting with HMB dating from their menarche are termed as suffering from primary HMB, whereas relatively acute onset HMB occurring in later reproductive life is referred to as secondary HMB [7].

Nonsteroidal anti-inflammatory drugs act by reducing the prostaglandin levels resulting in a reduction of menstrual flow by 22–50%. There are several types of oral contraceptives which act to suppress pituitary gonadotropin release, therefore, preventing ovulation and reducing blood flow by 50–60% [8]. Progestin is the most commonly prescribed for menorrhagia. Gonadotropin-releasing hormone agonist oral contraceptives are another option, which act by inhibiting the release of FSH and LH from the pituitary. This medication is used for a short time period due to high costs and possible severe adverse reaction [9]. The side effects caused by these medications are a frequent reason women discontinue the use of these medications

The menstrual cycle is governed by a network of gonadotropins (e.g., luteinizing hormone (LH) and follicle-stimulating hormone (FSH)) and sex steroid hormones (e.g., estrogens and progesterone); key

constituents of the hypothalamic-pituitary-gonadal axis. This system is closely related to the hypothalamic-pituitary-thyroid axis, which controls thyroid function [10]. However, the relationship between thyroid function and female reproductive physiology is complex. Women are more likely to develop thyroid disease than men, and incidence is greatest during times of hormonal flux, such as menopause, puberty, and pregnancy, which may indicate a role of estrogens [11].

Traditionally, hormonal therapy for menorrhagia has been progestogens given during the luteal phase of the cycle. Such treatments are ineffective [12]. Despite this, they remain the first choice of many general practitioners and gynecologists. Progestogens are effective when given for 21 days in each cycle, but the side effects may be such that patients choose not to continue with treatment [13]. Although progestogens have a contraceptive effect, their use in this way may not be the best choice when contraception is required by the patient. The main aim of the present investigation is to explore the factors that influence the condition of menorrhagia there by to roll out the factors hindering the therapy and to promote the wellness in the women's of reproductive age group.

2. Materials and Methods

2.1. Study design

Cross- Sectional study conducted in patients visiting siddha outpatient department (OPD) of Arignar Anna Government Hospital of Indian Medicine, Arumbakkam, Chennai, Tamil Nadu, India. Sample size of 200 patients were analyzed for the period of 3 months.

2.2. Study Approval

This study was approved by institutional ethical committee.

2.3. Sampling procedures

Sample size for this study was 200 participants of which 101 were reported with menorrhagia and remaining 99 were not reported with the complaints. All the participants were comprehensively explained about the objectives of this study before requesting them for their voluntary participation. Participants were also explained that completion and submission of the questionnaire would be taken as consent to participate in this study. Data were dealt with the high level of anonymity and confidentiality.

2.4. Questioner Pattern

The questionnaire was divided into fundamental sections that includes age, marital status, occupation, educational qualification, BMI, duration of menorrhagia, symptoms and its severity, co-morbid conditions etc.

2.2. Statistical Analysis

All these data entered in Microsoft excel and analysis was done by SPSS statistics version 26. Percentage, Chi-square test and logistic regression were used in final analysis.

3.Results

3.1. Result analysis on demography of study participants

The current study shows that Menorrhagia was common among the 40 – 45 age group of women. In our study 40% of women were obese. 90% of women were married and the remaining 20% of them were unmarried. 32.5% of women had 3 times parity and 27.5% of women had history of 2 times parity. 30% of women were suffering from hyperthyroidism and 27.5 % of women were suffered from hypertension. As shown in Table 1.

3.2. Result analysis on Prevalence and duration of Menorrhagia on study participants

The above analysis stated that 50.5% of women were suffered from Menorrhagia. 39.6% of women were using 7 pads per day. 34.65% of women were using 8 pads per day. 64% of women were suffered from this complaint for the past 1 year. 47% of women had a long duration of menstrual cycles (i.e 8 – 10 days). 35% of women were suffered from heavy bleeding. Next to this 20 % of women were suffered from heavy bleeding, low back pain, fatigue, tiredness. 86.14% of women had a uterine fibroid. As shown in Table 2.

3.3. Result analysis on Diet pattern and home remedies utilised by study participants

The above analysis stated that 34.65% of women were taking ordinary food. 22.72% of women were taking liquid food. 32% of women were taking rest during that time. 27% of women did all the work during menstrual cycle. 25% of women were taking black gram vada, 20% of women were taking vazhaipoo during the menstrual cycle and 19% of women were taking lemon. As shown in Table 3.

3.4. Result analysis on distribution of hereditary Etiology and medication history study participants with menorrhagia

The above analysis stated that 69% of women having hereditary etiology for menorrhagia. 60% of women were taking Siddha treatment. As shown in Table 4.

4.Discussion

Menstrual disorders pose a huge burden on gynecology OPD, accounting for approximately 20 % of attendance [14]. The current study shows that Menorrhagia was common among the 40 – 45 age group of women. In our study 40% of women were obese. 90% of women were married and the remaining 20% of them were unmarried. 32.5% of women had 3 times parity and 27.5% of women had history of 2 times parity. 30% of women were suffering from hyperthyroidism and 27.5 % of women were suffered from hypertension.

The etiology of menorrhagia includes hormonal, mechanical, and clotting abnormalities. Hormonal causes include: anovulation, [15] hypothyroidism,[16] Mechanical causes include: cancer, endometriosis, and endometritis [17].Clotting abnormalities include: vitamin K deficiency, and circulating inhibitors of coagulation [18]. It was observed from the present study that The above analysis stated that 50.5% of women were suffered from Menorrhagia. 39.6% of women were using 7 pads per day. 34.65% of women were using 8 pads per day. 64% of women were suffered from this complaint for the past 1 year. 47% of women had a long duration of menstrual cycles (i.e 8 – 10 days). 35% of women were suffered from heavy bleeding. Next to this 20 % of women were suffered from heavy bleeding, low back pain, fatigue, tiredness. 86.14% of women had a uterine fibroid.

Studies have showed a significant association between nutritional status and menstruation pattern, [19] The reason for inconsistent results can be the difference in the evaluation of nutritional status, as BMI was considered as an index for evaluation of nutritional status in their study, while in the present study. From the present study it was shown that 34.65% of women were taking ordinary food. 22.72% of women were taking liquid food. 32% of women were taking rest during that time. 27% of women did all the work during menstrual cycle. 25% of women were taking black gram vada, 20% of women were taking

vazhaipoo during the menstrual cycle and 19% of women were taking lemon.

Both hypothyroid and hyperthyroid women have been reported to have a greater prevalence of menstrual disturbances compared with euthyroid women [20]. Specifically, hypothyroid women are more likely to experience oligomenorrhea and menorrhagia [21]; and hyperthyroid women are more likely to experience hypomenorrhea compared with euthyroid women [22]. Diabetes, obesity, and polycystic ovary syndrome are the considerable risk factors in women reported with menorrhagia. In our present investigation out of 200 women who enrolled in the study. The prevalence of heavy menstrual flow was experienced at 51%. Heavy menstrual bleeding was higher in women who were obese (40%), who had hyperthyroidism (30%), hypertension (27.5%), uterine fibroid (86.14%), and hereditary etiology (68.32%).

5. Conclusion

Heavy menstrual bleeding is one of the most common gynecological problems, which accounts for 18–30% of gynecologic visit. Menorrhagia has significant impact on a women's physical, psychological, social, professional and family perspectives. Results of present investigation clearly depicts that the prevalence of heavy menstrual flow was experienced at 51%. Heavy menstrual bleeding was higher in women who were obese, reported with hyperthyroidism, hypertension, uterine fibroid and hereditary etiology. In this systematic investigation we present information relating to the prevalence and primary factors that influence the condition of menorrhagia. Further these evidence based data provide reliable information pertain to the comorbid factors such as obesity, hyperthyroidism, hypertension, uterine fibroid, and hereditary etiology were more severely influencing menorrhagia.

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6. References

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Table 1: Frequencies and percentage of the studied sample

Variables	Groups	Frequencies	Percentage
Age Group	35 – 37	5	5
	38 - 39	7	6.93
	40 – 42	43	43
	43 - 45	46	45.54
Body Mass Index (BMI)	Normal	49	24.5
	Overweight	54	27
	Obese	80	40
	Under weight	17	8
Marital status	Married	190	90
	Unmarried	20	10
Parity	1Time	30	15
	2 Times	55	27.5
	3Times	65	32.5
	4Times	35	17.5
	Miscarriage	7	3.5
	No baby	8	4
Systemic Illness	Hypertension	55	27.5
	Hyperthyroidism	60	30
	Diabetic Mellitus	50	25
	Diabetic Mellitus & Hypertension	35	17.5

Table 2: Frequency and percentage distribution about Menstrual history

Variable	Group	Frequency	Percentage
Menorrhagia	Yes	101	50.5
	No	99	49.5
Number of pads used	5 Pads	6	5.95
	6 Pads	20	19.8
	7 Pads	40	39.6
	8 Pads	35	34.65

Menorrhagia Complaint Persists	3 Months and below	2	2
	4-7 Months	8	8
	8- 7 Months	65	64
	1year	14	14
	2 Year	10	10
	3 Year		
Menstruation Days	3 Days	1	1
	4-7 Days	9	9
	8-10 Days	47	47
	Above 10 Days	44	43
Symptoms	Heavy Bleeding	36	35
	Low back pain	15	15
	Heavy Bleeding & Low back pain	30	30
	Heavy Bleeding, Low back pain, Fatigue & Tiredness	20	20
Uterine fibroid	Yes	87	86.14
	No	14	13.86

Table 3: Frequency and percentage distribution about diet pattern, customs followed and living style and home remedies during the menstrual cycle. Terms used about the menstrual cycle.

Variable	Group	Frequency	Percentage
Diet pattern	Ordinary food	35	34.65
	Consume liquid food	23	22.72
	Never taken any food	9	8.9
	Loss of appetite	15	14.9
	Food has taken twice a day	19	18.81

Customs followed and living style during the time of menstrual cycle	Take rest	50	50
	As usual	20	20
	I prefer to sleep only at floor	13	12
	No formalities	18	18
Home remedies practiced during menstrual time	Black gram vadai	20	19
	Lemon	25	25
	Vaazhai poo	20	20
	Cumin water	18	18
	Ginger tea	10	10
	Puttu	8	8

Table 4: Frequency and distribution of hereditary Etiology and medication history

Variable	Group	Frequency	Percentage
Hereditary causes	Yes	69	68.32
	No	32	31.68
Medication History	Siddha Treatment		
	Allopathy Treatment	61	60.4
	Siddha & Allopathy Treatment	3	2.97
	None	22	21.78
		15	14.85