ORIGINAL ARTICLE

Prevalence of Menstrual Disorders in Woman of Reproductive Age Group

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ABSTRACT

Background: Menstrual cycle occur monthly in every woman due to hormonal changes at hypothalamic, pituitary and ovarian levels. Abnormal uterine bleeding occurs due to any defect in structure or function of hypothalamic, ovarian, pituitary axis, coagulopathies, endometrial dysfunctions, iatrogenic causes; now also summarized in PALM-COIN system for better diagnosis and management of the patient.
Aim: To see the prevalence of menstrual disorders in woman of reproductive age group.
Methods: This Cross sectional study was conducted in the department of Obstetrics &Gynecology at Pak Red Crescent Medical and Dental College from 1stNovember 2018 to 30thApril 2019 by filling a pretested questionnaire related to menstrual cycle for all woman coming to gynecology OPD. The data of 790 women was analyzed using the Statistical Package for Social Sciences version 20.
Result: Total 790 females participated in the study. The mean age of the females was 28.56 (±8.65) years. Majority of females were illiterate and belonged to lower class families. The mean age of menarche in our population was 12.90±1.23 years. In this study 206(26.07%) females had some abnormality of menstrual cycle. Dysmenorrhea was most common menstrual disorder present in 308(38.9%) females followed by infrequent menstruation present in 69(8.71%) females and heavy menstrual bleeding found in 53(6.7%) of women.
Conclusion: Menstrual problems are common in Pakistani woman. These disorders are significant source of morbidity. Awareness should be given for early treatment and management within the available reproductive health resources and programs including educational packages and easy therapies, like hormonal contraceptives.
Keywords: Menstrual disorders, frequent menstruation, infrequent menstruation, dysmenorrhea

INTRODUCTION

Menstruation is the most remarkable event in the process of puberty[1]. Menstrual cycle begins at menarche continues throughout the reproductive years and ends at menopause. A normal menstrual cycle occurs between the age of 11 and 15 years with menstrual bleeding occurring for 8 days or less and mean menstrual blood loss in healthy woman range between 37 and 43 ml with maximum upper limit of 80ml[1, 2].

Menstrual cycle pattern changes with age. Overall cycle variations are common at menarche and perimenopause. Whereas cycles are more regular after menarche till perimenopause[3] Incidence of HMB increases with age but incidence of both intermenstrual and postcoital bleed decreases as age of women advances[2].

A menstrual disorder is an abnormal condition in women's menstrual cycle. Menstrual disorder may present as abnormal uterine bleeding, dysmenorrhea, premenstrual syndrome and premenstrual dysphoric disorder.

Menstrual disorders are one of the most common disorders in woman of reproductive age groups[4,5,6].These are equally prevailing in developing and developed countries[7,8]. Menstrual disorder not only effects woman's physical and social wellbeing, but interfere with her professional work performance and her marital relationship and causes financial burden on the economy[9,10,11].

Although a large proportion of women are suffering attention is paid to understanding and ameliorating from menstruation related health issues [12,13,14]and are

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concerned with menstrual disorders but only little women's menstrual complaints. Different studies in our country have also been conducted on this issue but most of them focus on specific age groups especially younger age groups So aim of our study was to find the prevalence of different menstrual disorders in entire reproductive age group excluding extremes of ages of less than 15 and more than 40 presenting in gynecology OPD of our department and to adopt a structural management plan for these women to provide best possible care at one stop clinic.

The objective of the study was to see the prevalence of menstrual disorders in woman of reproductive age group.

METHODOLOGY

We conducted a cross sectional study in the women coming to gynecology outdoor of Pak Red Crescent Hospital for various problems for a duration of 6 months from 1st November 2018 to 30th April 2019. All women coming to gynecology OPD between the ages of 15 to 40 were included.
Exclusion Criteria: Women above the age of 40 and below the age of 15 were excluded.
Women having any malignancy were excluded.
Women using hormonal contraception were excluded.
We took permission from ethical committee of the hospital and informed written consent from every patient. Then we filled the questionnaire which included patient name ,age, occupation, education status, her age of menarche, the pattern of menstrual cycle including the days of bleeding, blood loss(estimate was done by number of sanitary pads; homemade or commercial) and pain during bleeding.

The following definitions were used to define normal menstruation and various menstrual disorders: Normal menstrual cycle: The duration of a normal menstrual cycle was taken as 24 to 38 days, with menstrual flow ranging from 2 to 8days. Cycles were considered regular if they had shortest to longest variation of 7 to 9 days. Any abnormality of frequency, duration, regularity and flow volume was taken as abnormal uterine bleeding. Infrequent menstruation is a condition in which the menstrual cycle occurs at interval longer than 38 days. Frequent menstruation refers to cyclic bleeding that occurs at too frequent intervals of less than 24 days, for example 5/24. Heavy menstrual bleeding is bleeding volume sufficient to interfere with the woman's quality of life. Dysmenorrhea refers to the presence of painful menses. In the present study, all the above mentioned definitions were applicable if the symptoms were present for at least the last 3 menstrual periods[15,16]. The data was analyzed using the SPSS version 20.

Parameters	Normal/Abnormal
Frequency	Absent (no bleeding)=amenorrhea
	Infrequent (>30 days)
	Normal(≥24 to≤38 years)
	Frequency (≤38 days)
Duration	Normal(≤38 days)
	Prolonged (>days)
Regularity	Normal or "regular" (shortest to longest cycle variation:≤7-9 days)*
	Irregular (shortest to longest cycle variation:≥10 days)
Flow volume (patient determined)	Light
	Normal
	Heavy

RESULTS

Age of menarche	Frequency	%age
8	1	.12
9	1	.12
10	11	1.39
11	32	4.05
12	218	27.59
13	234	30.1
14	192	24.3
15	89	11.2
16	12	1.51

Socio demographic data of 790 females who participated in study

Age group	Frequency of patients	%age
15-20	194	24.55
21-30	347	43.92
30-40	249	31.51
Education status		
Literate	307	38.86
Illiterate	483	61.13
Occupation		
Home makers	516	65.31
Working	93	11.77
Student	181	22.91
Socioeconomic status		
Upper class	11	1.3
Middle class	338	42.7
Lower class	441	55.82
Total	**790**	

Characteristics of the menstrual cycle

Characteristic of cycle	Frequency	%age
Normal	584	73.92
Abnormal	206	26.07
Abnormal flow volume (HMB)	53	6.7
Abnormal Frequency	113	14.30
Frequent cycles	42	5.31% (32.83% of 113)
15-20 years	18	
21-30 years	17	
31-40 years	7	
Infrequent cycles	69	8.73% (62.1% of 113)
15-20 years	32	
21-30 years	17	
31-40 years	20	
Amenorrhea	2	.253% (1,7% of 113)
Prolonged bleeding	42	5.31%
Dysmenorrhea	308	38.9%
15-20	150	48.7% of 308
20-30	90	29.22% of 308
30-40	68	22.07% of 308

DISCUSSION

Total 790 females participated in the study. The mean age of the females was 28.56 (±8.65) years. Majority of females were illiterate and belonged to lower class. As shown in age of menarche table 644(81%) of females had attained menarche at the age of 12–14 years while 45(5.6%) of subjects had attained menarche before 12 years of age (early menarche)and 101(12.7%) females had attained menarche after 14 years (late menarche).The mean age of menarche in our population was 12.90±1.23 years. In this study about 584(73.92%) of females had completely normal periods while 206(26.07%) females had some abnormality of frequency, flow, volume or duration of bleeding. The length of menstrual cycle was normal i.e., 24-38 days in 677(85.69%) females while as 42(5.31%) females had frequent menstruation, 69(8.73%) females had infrequent menstruation and less than 2(1%) females had amenorrhea i.e., menstrual interval greater than 90 days. In our population 42(5.31%) females had prolonged menstrual cycle. Dysmenorrhea was present in 308(38.9%) females and heavy menstrual bleeding was present in 53(6.7%) of females.

Considering the length of the cycle our result was not so different from other parts of the world. In our study 85.69% of patients had normal length while 14% patients had frequent or infrequent cycles. Sheema Samreen et al mentioned 90% woman had normal cycle length in her study on Kashmiri women[13] whereas about 78% woman in Raza Omani et al study in Iran had normal cycle length[16].

8.75% woman had cycle interval greater than 38 days. Similar results were seen in one of the Saudian studies, in Kashmiri study and Harlow Campbell study[4,7,13] whereas our results were different from one of studies involving young school girls where infrequent cycles were present in upto 15% of girls[17]. About 5.3% of woman had menstrual cycle interval of less than 24 days. These results matched with Harlow and Campbell results of 1 to 6% and were in contrast to Sheema Samreen et al Kashmiri study where only 2% of woman had frequent cycles.[7,13]

Heavy menstrual bleeding was present in 6.7% of subjects again matching with the results of Harlow et al and Nazish et al studies; 4 to 9% and 3.4% respectively[7,4] whereas the results were different from Kashmiri study where it was present in 24% of subjects, an Iranian study where it was found to be 19.24% and community based study in Brazil by Ina S Santos where upto 35% woman reported heavy menstrual bleeding[13,16,18]. This difference can be due to difference in methods of study, subjective and objective measurements as well as exclusion of older age group.

Dysmenorrhea was seen in 38.9% subjects which was comparable with Laksham et al study depicting dysmenorrhea in 45% subjects[12] and Campbell and Harlow meta-analysis and study conducted in Labenese nurse students where it was 25-58% and 38% respectively[7,19] wherea

s it was in contrast to young school girls study by Nazish et al, mazartine et al and Samani et al meta-analysis in Iran where it was seen in almost 90%, 75% and 73% of subjects respectively[4,20,16]. The highest prevalence in our study was in younger age group as seen in other studies as well[7]. The difference can be due to difference in age groups and different methods of data collection. Dysmenorrhea can be primary or secondary and is mostly associated with other symptoms such as nausea, tiredness, vomiting, irritability and headache.

Prolonged bleeding period in our study was present in 5.31% subjects. Similar results were seen in Karthik Balaji Laksham study where 7% subjects had this complain[12]. Menstrual disorders are one of the most common disorders in woman of reproductive age groups. [15] These disorders affect the socioeconomic life of not only woman but their families as well by limiting their daily activities and putting financial burden on economy. They are also an important cause of college/school absenteeism and poor professional performance (15, see 1 of 15) (20 see 12 of 20 same views on dysmenorrhea)

Abnormal uterine bleeding is often manifesting some underlying disease like hormonal disorders, endocrine disorders, neurological disorders, structural causes[6,16,21,22]. Abnormal uterine bleeding can also result in anaemia, infertility and endometrial cancers[23]. If these menstrual disorders are not curtailed in time and access to basic health care services is also inadequate the severity of disease and its complications will be more on women[7].

CONCLUSION

Menstrual disorders are prevalent in Pakistan. Management of these disorders should be paid more attention within the available reproductive health care programs. Further research into prevalence of and risk factors for menstrual disorders and their morbidity is endorsed.Appropriate health education measures should be promoted to encourage women to seek medical management leading to early diagnosis and treatment.

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