

PATTERN OF GYNECOLOGICAL PROBLEMS IN FEMALE MEDICAL STUDENTS

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ABSTRACT

Objective: To know the prevalence of different gynecological problems in female medical students

Material and methods: This is a cross sectional descriptive study that was carried out from Jan 2010-June 2010. The study was conducted in three main medical colleges in Peshawar, Khyber Medical College, Khyber girls' Medical College, and Kabir Medical College Peshawar. Female students were given a questionnaire to complete.

Information related to age at menarche, gynecological problems specially menstrual problems and treatment practices, drug history were all noted on Performa. The data was analyzed using SPSS 10 version. Descriptive statistics were computed.

Results: The study subjects included all unmarried female students of all professionals like first year, second year, third year, fourth year, and final year MBBS students of selected Medical colleges. Total 210 students were interviewed. The mean age of participant was 20.96 years. (17--25 years). In 31% of girls {65 students} the age of menarche was of <12 year. Majority of the students (115), attained menarche at the age 12-15 year (54.7%). After 15 years of age the no of girls were 30 (14.3%).

Regarding menstruation 50.5% were of normal cycle, and 49.5% were of abnormal cycle (20.5% have irregular cycle, 18.1% have menorrhagia, 3.3% oligomenorrhea and amenorrhea was found in 16 girls i.e 7.6%, in which 3 girls have primary amenorrhea and 13 girls have secondary amenorrhea).

50% students have dysmenorrhea, 36.7% have Premenstrual syndrome, 55.7% have vaginal discharge, 13.8% hirsutism, and 14.3% girls were found with obesity.

Conclusion: The mean age of menarche in our setup is 13.5 years.

The main outcome measures about the gynecological disorders in medical students were

1. 49.5% have abnormal cycle i.e. polymenorrhagia, menorrhagia, amenorrhea, oligomenorrhea
2. Almost half of students were suffering from dysmenorrhea followed by Premenstrual syndrome.
3. Vaginal discharge was found along with other associated gynecological problems in most of students.

INTRODUCTION

Gynecological problems in young adult females are very important subject to know about, specially in medical students because in future they will be the important part of the nation so one should be aware of the gynecological problems. So I selected this group for the prevalence of different gynecological problems.

Gynecological problems of young age female students occupy a special space in the spectrum of gynecological disorders of all ages. This is because of the physical nature of the problems which are so unique,

special and specific for the age group, and also because of the association and psychological factors which are very important in the growth and remodeling of some one in the transition between childhood and womanhood.

Yet adolescent gynecology is still not explored optimally.

Gynecological problems in adolescent and young adult females create great levels of anxiety in parents particularly, but fortunately very few of these disorders could be considered common. However when they do present, it is important that the clinician has an understanding so that appropriate advice may be given to the patients and management is frequently through simple means^{1, 2}.

Serious gynecological pathology is rare in this age group, but menstrual abnormality is not very uncommon and may add further disruption to this difficult phase for young girls and their families. It is likely that many girls with menstrual abnormalities never presents to their

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family doctor or gynecologist. Menstrual problems are a common presentation in gynecological problems in young girls. By late adolescence, 75% of girls experience some problems associated with menstruation.^{3,4}

Delayed, irregular, heavy menstrual bleeding are leading reason for physicians offices visits by young girls, and dysmenorrhea is the leading reason for school abstenism among girls. Menstrual patterns are also influenced by a no of host and environmental factors^{5,6}

The onset of menstruation or menarche is a hallmark of female pubertal development. The menstrual cycle involves the coordination of many events and is readily involves the hypothalamic pituitary ovarian axis and is readily influenced by physiological, pathological, and psychological changes occurring during the reproductive life span. The age of menarche is determined by general health, genetic, socioeconomic and nutritional factors. The mean age of menarche is typically between 12-13 years.⁷

Nutrition and body weight play an important role in pubertal development. Chronic disease, malnutrition, eating disorders and high levels of physical activity can delay menarche. The mechanism for this relationship has not been conclusively defined. Insulin has been suggested as a modulator of the tempo or pubertal development though regulations of insulin like growth factor binding protein and sex hormones binding globulin.⁸

States of over nutrition and obesity are associated with increase serum concentration of insulin. Therefore if excessive nutritional intake persists during childhood, it is possible that hyperinsulinemia resulting from obesity may lead to lower levels of IGF bp-1 and reduced SHBG concentration, thus enhancing IGF-1 and sex steroid bioavailability.

Excessive cyclical menstrual bleeding is menorrhagia. Menstrual bleeding lasts for 2-7 days in 80-90% of girls as a role of thumb; changing 3-6 pads per day without soiling from over saturation pads suggest a normal flow.⁹

The commonest cause of oligomenorrhea is PCO and other causes include either temporary disturbances of menstrual cycle control, body weight (obesity or under weight) and hyperprolactenemia as well as developing causes of secondary amenorrhea.

PCO appears to underlie irregular menses in up to one third of cases.

Menstrual disturbances is likely to be the main issue for adolescents with PCO but the established long term risk of obesity, sub fertility and diabetes as well as the possible risk of endometrial hyperplasia and carcinoma, and cardiovascular disease and breast carcinoma required consideration

Hyper androgenism and hirsutism are distressing

symptoms for young woman and the clinicians should be aware that cosmetic measures may disguise the extent of the problems optimally treatment combines both cosmetic and medical therapies. Medical regimen aimed at slowing the rate of hair growth whilst cosmetic treatment attempts to remove existing hairs. ^{10, 11, 12.}

UK teen agers have high rates of STI, and younger age is the strongest risk factor for Chlamydia trachomatis infection, across a broad range of population. Effective prevention strategies must include the younger adolescent population, ideally before they become sexually active.^{13, 14}

Early menstrual cycles in the majority anovulatory and cycle length may vary for some considerable years after menarche, it may take some 5-8 years before menstrual cycle normality is established. Therefore it is again not uncommon that the primary dysmenorrhea often post dates menarche. As the anovulatory cycle is due to failure of lutinization of follicles and subsequent ovulation the lake of production of progesterone means that there is endometrial hyperplasia. In many girls their menstrual loss can be very heavy. The adolescent gynecological pt usually presents one of three problems. First there are those problems associated with the menstrual cycles and menstrual dysfunction, dysmenorrhea and premenstrual syndrome are the main group of disorders. Second, the pt may presents with amenorrhea and third is problems of teenage hirsutism. Normal blood loss should not exceed 80 ml during a period.¹⁵

In this study an attempt has been made to review the gynecological problems of the medical students in colleges. Mainly the menstrual problems, including menorrhagia, poly menorrhagia, amenorrhea and oligomenorrhea. The other gynecological problems were Premenstrual syndrome, dysmenorrhea, obesity hirsutism, and vaginal discharge were also seen in medical students.

MATERIALS AND METHODS

This is a crosssectional descriptive study that was carried out from Jan 2010-June 2010. The study was conducted in three main medical colleges in Peshawar, Khyber Medical College, Khyber Girls Medical College, and Kabir Medical College Peshawar. Female students were given a questionnaire to complete. Two researchers and one research assistant were on site to assist the students. Students were briefed on the objective of the study and all of them were consented to take part in the study. Anonymity was assured and emphasized. Information related to age, age of menarche, gynecological problems especially menstrual problems and treatment practices, drug history were noted. The data was analyzed using SPSS 10 version. Descriptive statistics were computed.

Questions related to age of the student, age at onset of menstruation, menstrual cycle pattern like duration of cycle ,regular or irregular cycle, flow of menstrual blood i,e scanty or heavy ,dysmenorrhea associated with cycle ,associated Premenstrual syndrome, primary or secondary amenorrhea(absence of cycle), other gynecological problems like excessive hair growth(hirsutism) obesity, and vaginal discharge were noted .

Married girls were excluded. Most of girls have more than one problem at same time like menorrhagia, PMS or dysmenorrhea. Like hirsutism obesity or amenorrhea in the same person. % ages were calculated and result was computed.

RESULTS

The study subjects included all unmarried female students of all professionals like first year, second year, third year, fourth year, and final year MBBS students of selected Medical colleges. Total 210 students were interviewed. The mean age of participant was 20.96 years.(17-25 years).In 31% of girls { 65 students}the age of menarche was of <12.Majority of the students(115), attained menarche at the age 12-15year (54.7%). After 15 years of age the no of girls were 30 (14.3%).

Regarding menstruation 50.5% were of normal cycle, and 49.5% were of abnormal cycle (20.5% have irregular cycle, 18.1% have menorrhagia, 3.3% oligomenorrhea and amenorrhea was found in 16 girls i,e 7.6% , in which 3 girls have primary amenorrhea and 13 girls have secondary amenorrhea).

55.7% have vaginal discharge, 50% students have dysmenorrhea, 36.7% have Premenstrual syndrome 13.8 %hirsutism, and 14.3% girls were found with obesity.

Table I shows the types of gynecological problems encountered in medical students under study.

Table II shows the various menstrual problems. Menstrual problems were in 49.5 %of students, which varied from amenorrhea 7.6%, menorrhagia18.1%,

Table I: Various gynecological problems

Gynecological disorder	Total no (210)	% age
Menorrhagia	38	18.1
Irregular cycle	43	20.5
Premenstrual syndrome	77	36.7
Dysmenorrhea	105	50
Oligomenorrhea	7	3.3
Amenorrhea	16	7.6
Hirsutism	29	13.8
Obesity	30	14.3
Vaginal discharge	117	55.7

Table II: Menstrual abnormalities(49.5%)

S.NO	Menstrual cycle	No	%age
1	Menorrhagia	33	18.7
2	Oligomenorrhea	7	3.3
3	Amenorrhea	16	7.6
4	Irregular cycle	43	20.5

Table III. TREATMENT OF DIFFERENT MENSTRUAL PROBLEMSs

TREATMENT OF POLYMENORRHAGIA	No of pt	%age
Drugs		
Estrogen	12	5.7
Progesterone	2	1
Combination	5	2.4
Others	6	2.9
Anti firinolytic	3	1.4
No treatment	185	88.1
TREATMENT OF DYS-MENORRHEA		
Nsaids	28	13.3
No treatment	179	85.2

oligomenorrhea 3.3%.and polymenorrhagia in 20.5%.

Table III shows the patient taken treatment and consultation.

DISCUSSION

The importance of educating girls about their reproductive health is gaining momentum during the past few years .^{15,16}

Different gynecological problems like menstrual irregularity, dysmenorrhea, amenorrhea, oligomenorrhea, hirsutism, obesity and vaginal discharge may affect the life of young girls; especially the menstrual irregularities like menorrhagia, polymenorrhagia dysmenorrhea, premenstrual symptoms, oligomenorrhea, and amenorrhea sometimes may cause serious problems¹⁷.

The pattern of menstrual cycle were analyzed for association with age of menarche ,prevalence of menstrual irregularity,dysmenorrhea, prolonged and heavy menstrual bleeding among female students were analyzed. Age of menarche in UK is around 12.6 years, which is consistent with our study 13.5 years.

The onset of menstruation is influenced by a numbers of factors. There is no doubt that this is genetically controlled, and the release of gonadotrophin hormone releasing hormone by the neurons in the arcuate nu-

cleus of hypothalamus is controlled by central factors influencing DNA within the cells^{18,19}.

Age of menarche in this country did not vary much from that of other countries.

The prevalence of dysmenorrhea and menstrual irregularity was high, and most girls have inappropriate and insufficient information about menstrual problems. Hence an education program is needed. The mean age of menarche 12.8 year. The prevalence of menstrual irregularity, prolonged menstrual bleeding and dysmenorrhea were 31.2%,5.3% and 89.5% respectively.²⁰⁻²³

In our study mean age of menarche was 13.5 years, polymenorrhagia, menorrhagia, and dysmenorrhea were 20.5%, 18.1% and 50% respectively.

Menstrual disorders were found in gynecological problems i.e. 58.06% in young girls.

In our study collectively menstrual problems were found among gynecological problems i.e. 49.5%. which is coinciding with international results. Menstrual disorders frequently affect the quality of life of adolescents and young adult women and can be indicators of serious underlying problems^{18,19}.

In one study the PMS (67%) and dysmenorrhea (33%) were perceived by the study subjects as the most distressing problems associated with menstruation .In these students they have prolonged resting hours(54%) followed by inability to study(50%).

In one study dysmenorrhea is the most common gynecologic complaint. It affects half of the female adolescents today and represents the leading cause of periodic college abstinence among that population. In our study PMS is 36.7% and dysmenorrhea was 50% cases.²⁴⁻²⁷

Prevalence of dysmenorrhea among students is high 73.83 %compared with our study which is 50%., and these people lack sufficient knowledge to confront the problem effectively. Raising students' awareness and effective treatment measures should be considered as a priority. A wide range of professionals including teachers, health educators, doctors and nurses can play a role in this process.²⁸

PMS was the second most prevalent disorder (60.50%).It is related to college abstinence, limitation on academic and social, sports and daily activity. Most of medical students do not seek medical advice and self treat themselves with prostaglandins inhibitors, like ibuprofen. PMS is a common problem in young Saudi students in Al Ahsa. Severe PMS was associated with more impairment of daily activities and psychological distress symptoms. Older student age, rural residence, earlier age of menarche, regular cycles and positive family history are possible risk factors for PMS in our study it was present in 36.7% of students.²⁹

Women with recurrent and severe symptoms are diagnosed as having premenstrual syndrome (PMS), and if they suffer from severe affective symptoms, a diagnosis of premenstrual dysphoric disorder (PMDD) is made. Work stress and an increase in responsibility may produce or exacerbate PMS. Self-help approaches to induce self-awareness, along with psychological and psychiatric interventions, may help susceptible women to overcome this cyclic condition in order to increase their productivity as well as their quality of life³⁰.

In our study most students were using NSAID 13.3 % and mostly were not using anything 85.2 % in PMS and dysmenorrhea We see that most of the students don't seek medical advice although it affect their studies by decreasing their study hours and abstinence from college attendants.13.3% of girls used to take NSAIDS for dysmenorrhea and 85.2% don't using anything for it while for menstrual problems 9.1% taking hormones and 2.9% other drugs, 1.4 % were using transaminic acid and 88.1 % were not using anything for menstrual problems.

Most girls suffer from secondary amenorrhea duration 4-5 months or oligomenorrhea were diagnosed cases of PCOS based upon clinical criteria of menstrual problems, features of hyperandrogenism.³¹

In our study oligomenorrhea was 3.3%, and amenorrhea was 7.6%.

50% participants reported their menarche occurred between the ages of 12-14, 61.6% of them still did not have regular menstruation. ³²

The most common cause of menorrhagia is AUB. Other causes of excessive uterine bleeding are bleeding disorder and complications of pregnancy were not ruled out. About 36.7% of females students had PMS in our study .For some, it was so severe enough for them to be absent from school.

Dysmenorrhea was relatively common with almost 2/3rd of students have this problems. The reported prevalence of dysmenorrhea in other studies ranges from 51-80 %.In our study it was 50% of cases presented with dysmenorrhea in which majority did not take any advise for it. ³³⁻³⁵

CONCLUSION

The mean age of menarche in our setup is 13.5 years.

The main outcome measures about the gynecological disorders in medical students were

1. 49.5 % have abnormal cycle i.e.poly menorrhagia menorrhagia, amenorrhea, and oligomenorrhea
2. Almost half of students were suffering from dysmenorrhea followed by Premenstrual Syndrome
3. Vaginal discharge was found along with other as-

sociated gynecological problems in most of Students.

Recommendations

Awareness and education is required

Large community based study is recommended.

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