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Gynecological Problems Seen in Teenage Girls in Sohag Governorate

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Abstract

Background: The most prevalent reason teenage girls see physicians is for gynecologic issues. The prevalent gynecologic issues in this demographic, such as amenorrhea, dysmenorrhea, abnormal vaginal hemorrhage, contraception, and sexually transmitted diseases, must thus be addressed by physicians who treat teens.

Aim and objective: The aim was to detect and assess teenagers' gynecological and obstetrical problems among the Upper Egyptian population.

Patients and methods: This research was performed at the department of obstetrics and gynecology, Sohag Teaching Hospital, on 400 patients who were separated into five groups based on demographic information. History taking, clinical examinations, blood tests, and ultrasonographic evaluations were performed on all patients.

Result: There was a highly statistically significant relation between disorders and both age and education.

Conclusion: Menstrual issues are the most frequent cause of gynecological OPD consultation in teenage females. Before assuming that bleeding issues in teenagers are a natural physiological transition, it is appropriate to evaluate these issues. Although only around 5% of patients in the gynecological outpatient department are teenagers, the treatment of their particular gynecological disorders in terms of presentation, diagnosis, and management is crucial for their future reproductive health.

Keywords: Adolescent girls, Gynecological problem, Menstrual disorders

1. Introduction

The teenage years are a difficult period. This claim was made often in the past, namely in the beginning of the 20th century. Menstruation, which signals that a woman's reproductive system has begun to work and she is now capable of bearing children, marks the beginning of a woman's reproductive age. However, because of how intricate and reliant on several smaller processes this process is, it may result in a variety of gynecological health problems.¹

Numerous gynecological and obstetrical issues affect teenagers, some of which may be very severe. To avoid the numerous gynecological issues, it is necessary to get periodic examinations and to be

conscious of one's health. Regular yearly examinations, breast examinations, colposcopies, pelvic ultrasounds to detect abnormalities, and other inspections are some of the tests connected to gynecological issues.²

Among the most common gynecologic problems in teens are irregular menstrual cycles and abnormal uterine bleeding (AUB). The term 'AUB' describes heavy bleeding or menstruation that does not follow a regular cycle. There are several terminologies used to characterize AUB, which may be brought on by a range of genital and nongenital tract diseases, systemic illnesses, and drugs.³

Sexually transmitted infections, struma ovarii, dysmenorrhea, imperforate hymens, chronic pelvic pain, menorrhagia, and several other ailments are

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among the various chronic gynecological issues. One of these issues is struma ovarii, which is characterized by an ovarian tumor with thyroid tissue as its primary cell type.²

Clinically speaking, delayed puberty is defined as the lack of or incomplete development of secondary sexual characteristics within the age range when 95% of children of that sex and culture have begun the process of sexual maturity. The criteria set out by James Tanner are used for the clinical staging of puberty. The National Center for Health Statistics reports that the upper 95th percentile age for males in the United States is 14 years.⁴

Owing to the known adverse effects on perinatal outcomes and long-term morbidity, teenage pregnancies have emerged as a public health concern. However, the high frequency of poverty, poor educational attainment, and single marital status among teenage mothers often obscure the relationship between early maternal age and long-term illness.⁵

The cervix may be examined for abnormal cells using a smear test. The cervix is the opening from the vagina to the womb. The purpose of a cervical smear is to examine the health of the cervix's cells, not to diagnose cancer. The majority of women's test results are normal, but in a small number of cases, the cervix's cells will exhibit some aberrant alterations.⁶

The aim of this study was to detect and knowing the teenager's Gynecological and Obstetrical problems in the Upper Egyptians perspective.

2. Patients and methods

This study was conducted on 400 patients who were chosen from the outpatient clinic of Obstetrics and Gynecology Department, Sohag Teaching Hospital. All cases are above 10 years old (teenagers, i.e. between the ages of 10 and 19 years). A verbal consent was obtained from each case after explanation of the purpose of the study.

Inclusion criteria were age between 10 and 19 years having one or more the followings: female circumcision problems, pubertal disorders, menstruation abnormalities, severe gynecological problems, chronic gynecological problems, and chronic pelvic pain.

Cases with age less than 10 years and age more than 19 years were excluded from the study.

The cases in the first visit were subjected to careful history taking; careful clinical evaluation; general evaluation, including age, weight, height, blood pressure, and BMI to detect underweight and obesity; local examination, including fundal level

and signs of hirsutism; and ultrasound assessment of uterus and ovaries. Routine laboratory investigation, including regular blood pressure measurement, was done. Ultrasonographic assessment was done for pregnant cases. Data of each studied case were recorded in an individual clinical sheet. All cases were subjected to hormonal analysis such as follicle stimulating hormone (FSH), luteinizing hormone (LH), thyroid stimulating hormone (TSH), serum prolactin, and total testosterone, except pregnant cases.

3. Results

There were 88 (22%) patients with age from 9 to 14 years and 312 (78%) with age from 14 to 19 years. There were 336 (84%) educated participants. There were 182 (45.5%) with BMI ranging from 18 to 20 and 218 (54.5%) with BMI from 20.1 to 25. According to residency, 224 (56%) were rural residents (Table 1).

There were 41 (10.3%) pregnant, 187 (46.8%) with premenstrual syndrome (PMS) dysmenorrhea, 25 (6.2%) with primary amenorrhea, 39 (9.8%) with secondary amenorrhea, 4 (1%) with cryptomenorrhea, 71 (17.8%) with vaginal infection, 31 (7.8%) with urinary tract infection (UTI), and 11 (2.8%) with hirsutism. There were four (1%) cases that had PMS dysmenorrhea and vaginal infection, two cases (0.5%) that had PMS dysmenorrhea and cryptomenorrhea, two cases

Table 1. Distribution of the study cases according to demographic data and gynecological disorders.

	Cases (n = 400) [N (%)]
Age (years)	
9–14	88 (22.0)
14–19	312 (78.0)
Education	
Educated	336 (84.0)
Noneducated	64 (16.0)
BMI	
18.0–20.0	182 (45.5)
20.1–25.0	218 (54.5)
Residence	
Rural	224 (56.0)
Urban	176 (44.0)
Gynecological disorders	
Pregnant	41 (10.3)
PMS dysmenorrhea	187 (46.8)
Primary amenorrhea	25 (6.2)
Secondary amenorrhea	39 (9.8)
not pregnant	
Cryptomenorrhea	4 (1.0)
Vaginal infection	71 (17.8)
UTI	31 (7.8)
Sexual abuse	0
Hirsutism	11 (2.8)

UTI, urinary tract infection.

Table 2. Relation between pregnancy and demographic data.

	Pregnant [N (%)]	Not pregnant [N (%)]	P value
Age (years)			
9–14	0	88 (24.5)	<0.001
14–19	41 (100.0)	271 (75.5)	
Education			
Educated	7 (17.1)	329 (91.6)	<0.001
Noneducated	34 (82.9)	30 (8.4)	
BMI			
18.0–20.0	18 (43.9)	164 (45.7)	0.828
20.1–25.0	23 (56.1)	195 (54.3)	
Residence			
Rural	35 (85.3)	189 (52.6)	<0.001
Urban	6 (14.7)	170 (47.4)	

(0.5%) that had PMS dysmenorrhea and primary amenorrhea, and one case (0.3%) that had UTI and primary amenorrhea (Table 2).

There was a high statistically significant relation between pregnancy and both age, education, and residence (Table 3).

PMS dysmenorrhea and education had a very statistically substantial relationship. Primary amenorrhea and age had a strong statistically substantial relationship. The relationship between secondary amenorrhea and demographic information was not statistically substantial. Age and cryptomenorrhea had a statistically substantial relationship (Table 4).

There was a high statistically significant relationship between vaginal infection and education. There was no statistically significant relationship between UTI and demographic data. There was no statistically significant relationship between hirsutism and demographic data (Table 5).

There was a high statistically significant relation between disorders and both age and education.

4. Discussion

Many teenagers with menstrual irregularities never see their primary physician or gynecologist. Delay in presentation may result from embarrassment about addressing menstruation, fear of illness, and ignorance of resources that are accessible. Menstrual abnormalities such as abnormal uterine hemorrhage, primary amenorrhea, polycystic ovarian disease (PCOD), adolescence menorrhagia causing severe anemia, sexual abuse, pregnancy-related issues, adnexal tumors, endocrinopathies, and others are among the many gynecological issues among adolescents. Teenage females who have puberty menorrhagia should be checked for coagulation issues.⁷

In the current study, we found that among the studied cases there were 88 (22%) with age 9–14

Table 3. Relation between PMS dysmenorrhea, amenorrhea and cryptomenorrhea and demographic data.

	PMS dysmenorrhea [N (%)]	Other [N (%)]	P value
Age (years)			
9–14	42 (22.5)	46 (21.6)	0.835
14–19	145 (77.5)	167 (78.4)	
Education			
Educated	172 (92)	164 (77)	<0.001*
Noneducated	15 (8.0)	49 (23)	
BMI			
18.0–20.0	88 (47.1)	94 (44.1)	0.558
20.1–25.0	99 (52.9)	119 (55.9)	
Residence			
Rural	109 (58.3)	115 (54)	0.388
Urban	78 (41.7)	98 (46)	
Primary amenorrhea			
Age (years)			
9–14	21 (84.0)	67 (17.9)	<0.001*
14–19	4 (16.0)	308 (82.1)	
Education			
Educated	19 (76.0)	317 (84.5)	0.261
Noneducated	6 (24.0)	58 (15.5)	
BMI			
18.0–20.0	9 (36.0)	173 (46.1)	0.325
20.1–25.0	16 (64.0)	202 (53.9)	
Residence			
Rural	14 (56.0)	210 (56.0)	1.0
Urban	11 (44.0)	165 (44.0)	
Secondary amenorrhea			
Age (years)			
9–14	8 (20.5)	80 (22.2)	0.813
14–19	31 (79.5)	281 (77.8)	
Education			
Educated	36 (92.3)	300 (83.1)	0.136
Noneducated	3 (7.7)	61 (16.9)	
BMI			
18.0–20.0	17 (43.6)	165 (45.7)	0.801
20.1–25.0	22 (56.4)	196 (54.3)	
Residence			
Rural	22 (56.4)	202 (56.0)	0.957
Urban	17 (43.6)	159 (44.0)	
Cryptomenorrhea			
Age (years)			
9–14	3 (75.0)	85 (21.5)	0.010*
14–19	1 (25.0)	311 (78.5)	
Education			
Educated	4 (100.0)	332 (83.8)	0.770
Noneducated	0	64 (16.2)	
BMI			
18.0–20.0	0	182 (46)	0.066
20.1–25.0	4 (100.0)	214 (54)	
Residence			
Rural	2 (50.0)	222 (56.1)	0.808
Urban	2 (50.0)	174 (43.9)	

years and 312 (78%) with age 14–19 years. There were 336 (84%) educated participants, 300 reached secondary education, and 36 cases were school dropouts. There were 64 (16%) noneducated girls who never went to school. There were 182 (45.5%) girls with BMI ranged between 18 and 20 and 218 (54.5%) with BMI from 20.1 to 25. According to

Table 4. Relation between vaginal infection, UTI, and hirsutism and demographic data.

	Vaginal infection [N (%)]	Other [N (%)]	P value
Age (years)			
9–14	10 (14.1)	78 (23.7)	0.076
14–19	61 (85.9)	251 (76.3)	
Education			
Educated	69 (97.2)	267 (81.2)	<0.001*
Noneducated	2 (2.8)	62 (18.8)	
BMI			
18.0–20.0	37 (52.1)	145 (44.1)	0.218
20.1–25.0	34 (47.9)	184 (55.9)	
Residence			
Rural	34 (47.9)	190 (57.8)	0.129
Urban	37 (52.1)	139 (42.2)	
UTI			
Age (years)			
9–14	6 (19.4)	82 (22.2)	0.711
14–19	25 (80.6)	287 (77.8)	
Education			
Educated	27 (87.1)	309 (83.7)	0.624
Noneducated	4 (12.9)	60 (16.3)	
BMI			
18.0–20.0	13 (41.9)	169 (45.8)	0.678
20.1–25.0	18 (58.1)	200 (54.2)	
Residence			
Rural	18 (58.1)	206 (55.8)	0.810
Urban	13 (41.9)	163 (44.2)	
Hirsutism			
Age (years)			
9–14	2 (18.2)	86 (22.1)	0.757
14–19	9 (81.8)	303 (77.9)	
Education			
Educated	10 (90.9)	326 (83.8)	0.526
Noneducated	1 (9.1)	63 (16.2)	
BMI			
18.0–20.0	2 (18.2)	180 (46.3)	0.065
20.1–25.0	9 (81.8)	209 (53.7)	
Residence			
Rural	4 (36.4)	220 (56.6)	0.184
Urban	7 (63.6)	169 (43.4)	

UTI, urinary tract infection.

residency, there were 224 (56%) rural residents and 176 (44%) urban residents. Moreover, 72 cases (18%) were married and aged from 15 to 19 years old.

In agreement with our results, Bhalerao-Gandhi *et al.*⁸ stated that when it comes to the age distribution of the female patients at the gynecology clinic, 27% of the population represents young adolescents (10–14 years), whereas 73% of the population represents late adolescents (15–19 years).

Our current findings regarding disorders clearly revealed that among the studied cases there were 41 (10.3%) pregnant, 187 (46.8%) with PMS dysmenorrhea, 25 (6.2%) with primary amenorrhea, 39 (9.8%) with secondary amenorrhea and not married or pregnant, four (1%) with cryptomenorrhea (imperforated hymen), two cases underwent hymenectomy and vaginoplasty and one case is pregnant now, 71

(17.8%) with vaginal infection, 31 (7.8%) with UTI, and 11 (2.8%) with hirsutism. There were four (1%) cases that had PMS dysmenorrhea and vaginal infection, two cases (0.5%) that had PMS dysmenorrhea and cryptomenorrhea, two cases (0.5%) that had PMS dysmenorrhea and primary amenorrhea, and one case (0.3%) that had UTI and primary amenorrhea.

This was in accordance with Bafna *et al.*⁹ who stated that menstrual disorders were the most prevalent issue, affecting 64.5% of people, followed by adolescent pregnancies (20.9%). Menorrhagia and polymenorrhea were reported in 23.6% of girls, whereas oligomenorrhea, including secondary amenorrhea, was the most prevalent menstrual disorder. Overall, 4% of teenage females had primary amenorrhea, according to the study. Menorrhagia/polymenorrhea was seen in early adolescent females, followed by oligomenorrhea/secondary amenorrhea; the trend was reversed in the late teenage group. This demonstrates that early teenage groups often have puberty menorrhagia, whereas late adolescent groups are more likely to experience polycystic ovary syndrome (PCOS).

We observed that there was a strong statistically substantial relationship between disorders and age, education, and place of residence in the present research.

Lalitha *et al.*¹⁰ showed that adolescent age group patients with particular gynecological symptoms made up roughly 6.25% of the patients who visited the gynecology OPD. Because many of them are still reserved and avoid going to the usual gynecological outpatient department, there is less of an occurrence at our hospital. Therefore, many of the hidden teenage concerns will be made public by specific adolescent clinics.

In the present study, we found that there was a high statistically significant relation between pregnancy and age, education, and residence.

These results were compatible with Bafna *et al.*⁹ who stated teenage pregnancies (20.9%) and its vices continue to plague adolescent females' reproductive health. This worrying condition may be caused mostly by early marriages (23.18%), lack of education (8.18%), school dropouts (20%), ignorance of safe-sex practices, and sex inequity.

Goswami *et al.*¹¹ illustrated that in our research, adolescent pregnancy was seen in 10.66% of instances, which is a prevalent issue in developing nations like India. Teenage pregnancy is an issue that endangers both the long-term health of the fetus and the mother. These females often engage in unsafe sexual activity, making them susceptible to sexually transmitted diseases.

Table 5. Relation between disorders and demographic data.

	Age (years)		Education		BMI		Residence	
	9–14	14–19	Educated	Noneducated	18.0–20.0	20.1–25.0	Rural	Urban
Pregnant								
N (%)	–	41 (100)	7 (17.1)	34 (82.9)	18 (43.9)	23 (56.1)	35 (85.3)	6 (14.7)
PMS dysmenorrhea								
N (%)	42 (22.5)	145 (77.5)	172 (92)	15 (8)	88 (47.1)	99 (52.9)	109 (58.3)	78 (41.7)
Primary amenorrhea								
N (%)	21 (84)	4 (16)	19 (76)	6 (24)	9 (36)	16 (64)	14 (56)	11 (44)
Secondary amenorrhea								
N (%)	8 (20.5)	31 (79.5)	36 (92.3)	3 (7.7)	17 (43.6)	22 (56.4)	22 (56.4)	17 (43.6)
Cryptomenorrhea								
N (%)	3 (75)	1 (25)	4 (100)	–	–	4 (100)	2 (50)	2 (50)
Vaginal infection								
N (%)	10 (14.1)	61 (85.9)	69 (97.2)	2 (2.8)	37 (52.1)	34 (47.9)	34 (47.9)	37 (52.1)
UTI								
N (%)	6 (19.4)	25 (80.6)	27 (87.1)	4 (12.9)	13 (41.9)	18 (58.1)	18 (58.1)	13 (41.9)
Hirsutism								
N (%)	2 (18.2)	9 (81.8)	10 (90.9)	1 (9.1)	2 (18.2)	9 (81.8)	4 (36.4)	7 (63.6)
P value	<0.001*		<0.001*		0.237		0.792	

UTI, urinary tract infection.

Our current findings regarding relation between PMS dysmenorrhea and demographic data clearly showed that there was a highly statistically substantial relationship between PMS dysmenorrhea and education.

This was in accordance with Houston *et al.*,¹² who noted that missing activities were substantially connected with having PMS and dysmenorrhea ($P = 0.0018$ and < 0.0001 , respectively).

In the current trial, we found that there was a highly statistically significant relation between primary amenorrhea and age. There was no statistically significant relation between secondary amenorrhea and demographic data.

Lalitha *et al.*¹⁰ revealed that adolescent females have a 22.2% prevalence of amenorrhea, with secondary amenorrhea being the most prevalent (80%) and primary amenorrhea making up ~20%. One case had constitutional delayed puberty, and reassurance was offered. Two of 45 cases had primary amenorrhea, the cause of which was an imperforate hymen.

In the current research, we found that there was a highly statistically significant relation between vaginal infection and education.

Abdelnaem *et al.*¹³ illustrated the association between pupils' sociodemographic factors and their overall knowledge. It was observed that there was a very statistically substantial relationship ($P < 0.001$, 0.001, 0.02, and 0.04) between the students' overall pretest knowledge score about vaginitis and their age, academic level, domicile, and mother's education. However, there was no statistically substantial ($P > 0.05$) correlation between students' socio-demographic information and overall knowledge

score in the post-test after 1 month. After 3 months, there was a very statistically substantial relationship ($P < 0.005$ and 0.01) between the pupils' overall knowledge score and their age and academic standing.

5. Conclusion

The most frequent cause of gynecological OPD consultation in teenage females is menstrual issues. Before assuming that bleeding issues in teenagers are a natural physiological transition, it is appropriate to evaluate these issues. Although only ~5% of patients in the gynecological outpatient department are teenagers, their care is crucial for their future reproductive health because adolescent gynecological disorders are distinct in how they appear, are diagnosed, and are treated. Adolescent clinics are required in crowded outpatient departments to provide teenagers and their moms a private place to talk about their issues without feeling embarrassed.

Conflict of interest

There are no conflicts of interest.

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