



CLINICAL SPECTRUM OF GYNAECOLOGICAL DISORDERS IN ADOLESCENTS

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ABSTRACT

Introduction- Adolescence is defined as transitional stage from childhood to adulthood which includes changes in various aspects like body structure, physiology, hormonal milieu and psychology. Adolescence period is period of 10-19 year of age can be divided into three phases: early (10-13 year), mid (14-16 year) and late (17- 19 years). India has the largest adolescent population in the world i.e. 253 million, and every fifth person in India is between 10 to 19 years.¹ Adolescent girls make 10% of total population and 20% of the female population. The aim of the study was to describe the clinical spectrum of various gynaecological disorders in adolescent.

Methodology- It was a cross - sectional observational study, conducted at SGRR institute of medical & health sciences Dehradun, from March 2023 to April 2024. In the present study, we have included girls between 10-19 years, attending outpatient department after informed consent.

Result

In the study we found that most of the girls belonged to age group 17-19 years. Maximum girls were having normal BMI but 24.67% were overweight and 2.27% were obese. Most common gynaecological complaint was menstrual disorders and in which infrequent menses followed by dysmenorrhea are the common complaints. PCOS was diagnosed in 15.58% adolescent girls. Vaginal discharge was the 2nd most common gynaecological complaint.

Conclusion

Adolescents need special attention and approach when it comes to their gynaecological health. Adolescent girls are embarrassed while sharing their problems; also they are fearful about the different situations sometimes even physiological. Empathetic approach along with good counselling helps them in overcome the different problems. Adolescent clinics are good options to provide adolescent girl a safe environment. PCOS is becoming the public health concern. Healthy lifestyle is need of the hour to prevent the new epidemic.

Introduction

Adolescence is defined as transitional stage from childhood to adulthood which includes changes in various aspects like body structure, physiology, hormonal milieu and psychology. Adolescence period is 10-19 year of age, can be divided into three phases: early (10-13 year), mid (14-16 year) and late (17- 19 years). India has the largest adolescent population in the world, 253 million, and every fifth person is between 10 to 19 years.¹ Adolescent girls make 10% of total population and 20% of the female population. These girls suffer from wide spectrum of gynaecological problems which includes menstrual disturbances, vaginal discharge and urinary tract infections etc. Gynaecological problems in adolescent girls have psychological bearing on their young minds. Embarrassment and hesitations make it difficult for adolescent girls to discuss their gynaecological problems and attend OPD. There is change in spectrum of gynaecological disorder in recent times and with flaring epidemic of lifestyle diseases worldwide, adolescent obesity and PCOS in girls are also increasing. In this study we have tried to find out the spectrum of various gynaecological disorders in the adolescent girls.

Methodology

It was a cross - sectional observational study. This observational study was conducted in Shri Guru Ram Rai Institute of Medical and Health Sciences from May 2023 to April 2024. The study was approved from ethical committee.

In the present study, we have included girls between 10-19 years of age over a period of a year, attending outpatient department after informed consent. A detailed menstrual history with other relevant history taken and physical examination done to look for pallor, secondary sexual characters, thyroid enlargement and signs of bleeding diathesis. Weight and height were recorded and body mass index calculated. Investigations were sent as or when required like CBC, Coagulation profile, thyroid profile, LH and FSH and Ultrasonography.

510 adolescent girls were enrolled from the outpatient department of OBGY from March 2023 to April 2024. 124 girls refused to participate, 58 refused for any investigation and further evaluation and 12 girls couldn't be included in the study for various other reasons and 8 girls didn't complete the study. All girls were evaluated with detailed history and general and local examination with demographic profile noted. Necessary investigations like complete blood count coagulation profile and hormonal assay like LH, FSH, S. prolactin, and TSH and pelvic ultrasonography was done wherever needed.

Inclusion criteria - Adolescent girls of 10 to 19 years age, attending gynaecology OPD (Outpatient department) with any gynaecological complaints and given consent for the participation in the study are included.

Exclusion criteria - Girls with any known medical illnesses like diabetes, chronic kidney disease were not included in this study.

Statistical analysis - The data was categorised in different age groups and analysed using suitable analysis tool. Percentages were obtained by simple formula of math.

Results

510 adolescent girls were enrolled from all the girls attending the outpatient department of OBGY from March 2023 to April 2024. 124 girls refused to participate, 58 refused for any investigation and further evaluation and 12 girls couldn't be included in the study for various other reasons and 8 girls didn't complete the study. After detailed clinical evaluation and investigation the data was categorised in different tables as given below.

Most of the girls included in the study belong to 17 to 19 years of age i.e., 185 girls (60.06%) followed by 14 to 16 years i.e., 92 girls (29.8%) followed by 10-13 year age group i.e. 31 (10.06%). Only 16 girls (5.19%) were married. Most of the girls (63.63%) had their menarche between 11-13 years of age. 161 girls (52.27%) had normal BMI, 64 girls (20.77%) had low BMI, and 76 girls (24.67%) of the participants were overweight and 7 girls (2.27%) were obese. Menstrual disorders (56.49%) followed by vaginal discharge (10.80%) and UTI related complaints (10.39%) were the

commonest presenting complaints. Dysmenorrhea (30.46%) and infrequent menses (27.36%) were the commonest complaints related to menstrual disorder. DUB and PCOS are the commonest menstrual abnormalities identified amongst the girls attending OPD. Teenager pregnancy was reported in 5 girls (1.62%). No girl found with any coagulation disorder. 2 girls reported with primary amenorrhea, in which one was found with imperforate hymen and other was having transverse vaginal septum. Another girl had secondary amenorrhea, diagnosed with prolactin secreting adenoma.

Table 1- Age distribution

Age (years)	Number	percentage
10-13	31	10.06%
14-16	92	29.8%
17-19	185	60.06%
Total	308	100

Table 2 - Marital status 292 girls (94.8%) were unmarried whereas 16 girls (5.19%) were married.

Marital status	Number	percentage
Unmarried	292	94.80
Married	16	5.19
Total	308	100

Table 3 - Age of menarche

Age of menarche (years)	number	Percentage (%)
<11	45	14.61
11-13	196	63.63
14-16	64	20.78
Menarche not attained	3	0.97
Total	308	100

Table 4 - Body mass index

BMI (kg/m ²)	Number	Percentage (%)
<19	64	20.77
19-25	161	52.27
25-30	76	24.67
>30	7	2.27
Total	308	100

Table 5 - Gynaecological complaints

Menstrual complaints	174	56.49
Vaginal discharge	Physiological/Leucorrhoea	26
	Vulvo-vaginitis	35
Pain lower abdomen	27	8.77
UTI related symptoms (frequency, burning or painful micturition)	32	10.39
Abdominal mass	4	1.3
Vulval swelling (bertholin's cyst/abscess, follicular abscess)	3	0.97
Breast lump, mastalgia	1,1	0.65
Antenatal	5	1.62

Table 6 - Type of menstrual disorder

Menstrual disorder	Number	Percentage (%)
Frequent menses	12	6.89
Infrequent menses	65	27.36
Heavy menstrual bleeding	26	14.94
Scanty menses	15	8.62
Secondary Amenorrhea	1	0.58
Primary Amenorrhea	2	1.15
Dysmenorrhea	53	30.46
Total	174	100

Table 7 – Problems identified

	Number	Percentage (%)
UTI	26	8.44
AUB – O	DUB – 45, PCOS - 48	14.61, 15.58
Vulvovaginitis, vaginosis	32	10.39
Coagulation disorder	0	0
Abdominal/ genital Koch's	2	0.65
Ovarian tumour	4 (Dermoid cyst 3, simple cyst 1)	1.3
Hypothyroidism	5	1.62
Imperforate hymen	1	0.003
Transverse vaginal septum	1	0.003
Prolactin secreting microadenoma	1	0.003
Bertholin's cyst	1	0.003
Follicular abscess	2	0.649
Fibroadenoma breast	1	0.003

Discussion

In our study, we found that most of the girls attending gynaecology OPD belonged to 17-19 year age group (60.06%). Similar results found by Hirani et al in their study². Most of the girls attended menarche between 11-13 years of age. Only 5% girls were found to married in our study which was lesser when compared to other studies. In our study 21 % girls were underweight while 26% girls were overweight amongst which around 1% girl was obese, which is far more than the study by Joshi et al (over weight 5.88%) and Mariyam et al (over weight 0.8%)^{3,4}. According to a study the prevalence of overweight and obesity in adolescent girls in general population is around is 17.1% and 6.8% consecutively⁵. The finding is similar to our study which directs towards increasing change to unhealthy lifestyles and food habits. The most common presenting gynaecological complaint was menstrual disturbances followed by vaginal discharge and UTI. This finding was similar to study done by Hirani et al and Rathod et al^{2, 6}. The commonest menstrual complaint was infrequent menses followed by dysmenorrhea. The findings were similar to Goswami et al study but Hirani et al and Rathod et al found the dysmenorrhea amongst common complaint^{2, 6, and 7}. While investigating the girls complaining menstrual disorder the problems identified were DUB, PCOS and hypothyroidism which was similar to finding by Goswami et al⁷. In cases of primary amenorrhea anatomical abnormality was found while hypoprolactinemia was responsible for secondary amenorrhea in our study.

Conclusion

Adolescents are the base of health of any society as a whole and healthy adolescent girls make a healthy mother and offspring. Also young girls have their own concern, embarrassment and fear regarding pubertal changes and adolescent related issues. The education of healthy lifestyle, the counselling regarding physiological conditions like normal vaginal discharge and detection of health

conditions is essential parts of adolescent health. Understanding of menstrual cycle, menstrual health and hygiene imparted via school education will go long way. Also the sex education and contraceptive counselling should also be offered wherever required with empathetic approach. Teenage pregnancy increases risk by various folds. Education of risks associated with teenage pregnancies may help in prevention along with the contraceptive counselling. Having separate adolescent clinics at health facility, give them friendly environment to discuss their problems. Increasing prevalence of lifestyle diseases like PCOS is triggering the alarm for upcoming epidemic and warrant lifestyle modification at grassroots level.

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