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A Prospective Study On Gynecological Problems In Adolescent Age Group Attending Opd At A Tertiary Care Centre

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Abstract

Background

WHO defines adolescence as the time period between 10–19 years of age group. According to WHO, adolescent girls make up to 21.4% of the female population (1). This is a time of transition from childhood to becoming responsible adults. The changes are not only physical and sexual, but psychological changes also occur, which may begin before and even continue after this age.

Method

A prospective observational study was conducted at JK Lon Hospital, Kota, over 12 months among 205 adolescent girls aged 10–19 years. Data were collected using structured proformas. Girls were evaluated by detailed history, thorough clinical examination, and investigations such as hemogram, coagulation profile, hormonal assays, and ultrasound examination of the abdomen and pelvis, as and when indicated. Data were entered using Microsoft Excel and analysed using SPSS v20.

Results

A total of 205 adolescent girls sought care for gynecological problems in the study period, with 44.8% of cases belonging to the age group between 18–19 years. Of the 205, 158 (77.07%) had some type of menstrual disorder. Of these 205 cases, about 41 of them were cases of heavy menstrual bleeding (27.89%). Anovulatory abnormal uterine bleeding (AUB) was the most prevalent cause, affecting 38.88% of cases. Polycystic ovary syndrome (PCOS) accounted for 31.70% of cases. Other presentations included vaginal discharge, urinary tract infection, abdominal pain, sexual assault (11 cases), and galactorrhea (2 cases).

Conclusions

The study shows more than half of the adolescent girls have menstrual disorders. This alarming finding calls for strengthening adolescent programs with targeted health education and behavioral change. Setting up separate adolescent clinics is necessary for the efficient management of menstrual disorders in adolescents.

Keywords: NIL

Introduction

According to the WHO, India has the largest number of adolescents in the world (2). In India, adolescents make up more than 21.4% of the population. Adolescence is a period of enormous physical and psychological change for young girls. It is a psychological, cognitive, and cultural maturation process initiated by biological changes of puberty that leads to maturation and growth of the body and mind. It is the most important period wherein the foundation of a responsible adult is laid.

Adolescence is likely the period of life that is the most unpredictable, difficult, and stressful. It is challenging for parents, teachers, and medical experts as well as the youngsters going through this era. Young girls go through a lot of physical and psychological changes during this time, which exposes them to issues with unanticipated reproductive organ territories and causes them embarrassment for which consultation is typically sought later in life (3).

Anaemia is aggravated and made worse by a lack of nutrition, the body's increased demand, and excessive menstrual loss (4). Events relating to hormones are crucial to this change. The commencement of menarche, which is frequently accompanied by issues with irregular menstruation, heavy bleeding, and dysmenorrhea, is one of the most significant physiological changes that occur in adolescent girls. Menstrual irregularities are typical and may cause even more chaos for teenagers and their families during this trying time. Many teenagers with menstrual irregularities never visit their primary physician or gynaecologist. Delay in presentation may result from embarrassment over addressing menstruation, fear of illness, and ignorance of accessible services (5). Numerous gynaecological issues include abnormal uterine bleeding, primary amenorrhea, PCOD, adolescence menorrhagia that causes severe anaemia, sexual abuse, pregnancy-related issues, adnexal masses, endocrinopathies, etc. Adolescent girls who are sexually abused will likely experience severe psychological effects that could last a lifetime. The frequency of PID and ectopic pregnancies has increased as a result of unprotected coitus, sex abuse, and repeated unsafe abortions. Women who experienced sexual abuse as children are more likely to experience early, unplanned pregnancies, STDs, prostitution, subsequent sexual abuse, antisocial behavior, running away from home, lying, stealing, eating disorders, obesity, and a variety of somatic symptoms (6).

In this study, we have made an attempt to review the gynaecological problems encountered in adolescent girls attending the Department of Gynecology at JK Lon Hospital, Kota, and analysed the menstrual abnormalities in this group.

Aims And Objectives

Primary Objectives

1. Evaluate the different gynaecological problems in adolescent girls attending the gynaecological OPD.
2. Evaluation of bleeding problems in adolescent girls and justify them before considering them as normal physiological transition.

Secondary Objectives

1. To find out the most common gynaecological problems in the adolescent age group attending the gynaecology OPD.
2. Adolescents with menorrhagia need to be evaluated earlier rather than later with the onset of symptoms so that effective management can be started and anaemia with its consequences can be prevented.
3. Adolescent health education and group discussion are needed to create awareness regarding gynaecological problems.

Methods

All adolescent girls with gynaecological problems attending JK Lon Hospital, Kota, over a period of 12 months were included in the study. The problems included menstrual disorders, vaginal discharge, urinary complaints, ovarian cysts, and sexual assault. A pre-tested semi-structured questionnaire was used to collect information regarding their sociodemographic characteristics, gynaecological history, family history, obstetric history, documentation of general physical examination, and other investigations. Investigations like CBC, urine routine, blood sugar, coagulation profile, hormonal assay (FSH, LH, Prolactin, TSH), and pelvic ultrasonography were done when required.

Inclusion Criteria

All adolescent girls with gynaecological problems like menstrual disorders, vaginal discharge, urinary complaints, and sexual assault in the age group of 10 to 19 years were included in the study.

Exclusion Criteria

1. Any medical and surgical illness.
2. Those not willing to participate and not giving consent.
3. Less than 10 years and greater than 19 years (those who do not belong to the adolescent age group).

Statistical Analysis

Data were entered using Microsoft Excel and analysed using SPSS 20.0. All conditions were reported using frequency and percentage.

Result

Volume 9, Issue 5; September-October 2026; Page No 187-195
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A total of 205 adolescent girls sought care for gynecological problems. According to Table 1, 44.8% of girls belonged to the age group of 18–19 years.

Table 1: Distribution of cases according to age group

Age (years)	Number	Percent (%)
14–15	29	14.1
15–17	84	40.9
18–19	92	44.8
Total	**205**	**100.0**

The age distribution shows that 14.1% of cases were in agegroup of 10-14 years,40.9% were aged 15-17, and 44.8% were aged 18-19, indicating a predominantly older adolescent population.

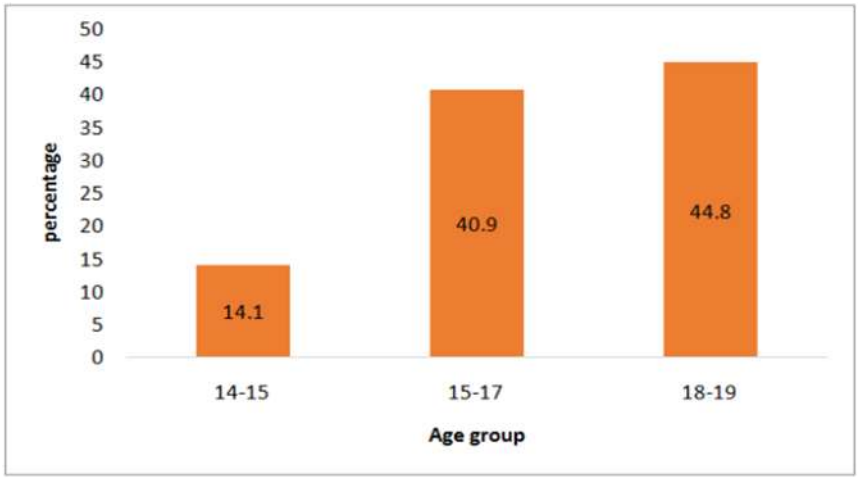
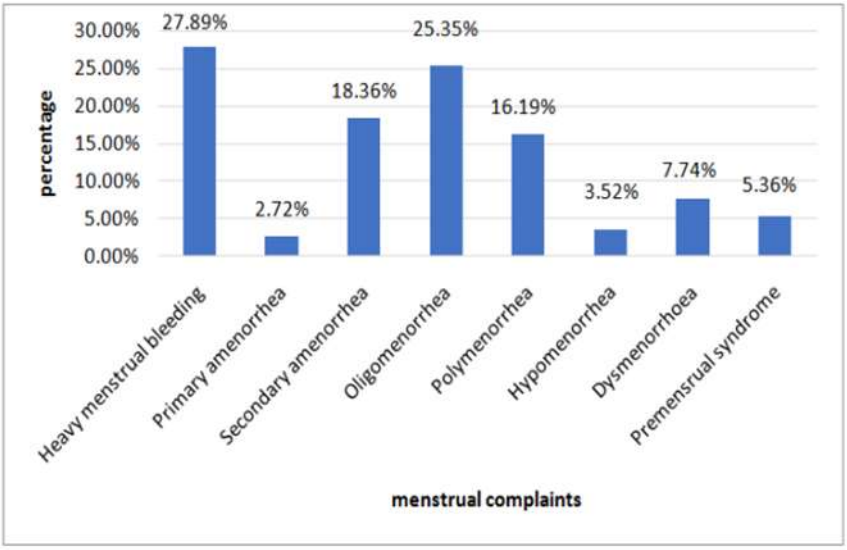


Table 2: Distribution of cases according to various menstrual complaints

Menstrual Complaint	Number	Percentage (%)
Heavy menstrual bleeding	41	27.89%
Primary amenorrhea	4	2.72%
Secondary amenorrhea	27	18.36%

Volume 9, Issue 5; September-October 2026; Page No 187-195
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Menstrual Complaint	Number	Percentage (%)
Oligomenorrhea (infrequent menses)	36	25.35%
Polymenorrhea (frequent menses)	23	16.19%
Hypomenorrhea (light menses)	5	3.52%
Dysmenorrhoea	11	7.74%
Premenstrual syndrome	11	5.36%
Total	**158**	**77.07%**



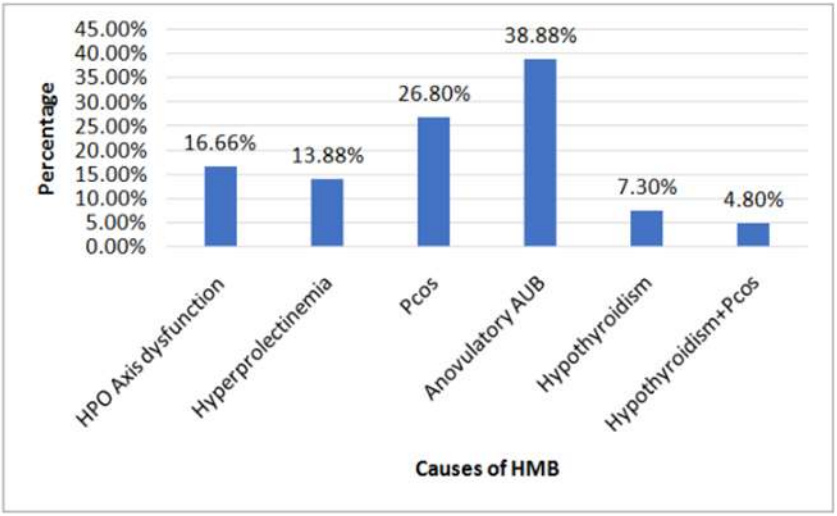
The distribution of menstrual complaints among the participants shows that heavy menstrual bleeding was the most common complaint, reported by 27.89% (41 cases) of the participants. Oligomenorrhea was reported in 25.35% (36 cases). Secondary amenorrhea was reported by,18.36% (27 cases), and polymenorrhea by 16.19% (23 cases). Other complaints include dysmenorrhea (7.74%, 11 cases), hypomenorrhea (3.52%, 5 cases), and primary amenorrhea (2.72%, ,4 cases) and premenstrual syndrome reported in 11(5.36%)cases. In total, 158 menstrual complaints were recorded, accounting for 77.07% of the participants.

Table 3: Distribution of cases according to causes of heavy menstrual bleeding(menorrhagia)

Causes of HMB	Number	Percentage (%)
HPO axis dysfunction	6	16.66%

Volume 9, Issue 5; September-October 2026; Page No 187-195
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Causes of HMB	Number	Percentage (%)
Hyperprolactinemia	5	13.88%
PCOS	11	26.80%
Anovulatory AUB	14	38.88%
Hypothyroidism	3	7.30%
Hypothyroidism + PCOS	2	4.80%



The causes of heavy menstrual bleeding varied among the participants. Anovulatory abnormal uterine bleeding (AUB) was the most prevalent cause, affecting 38.88% (14 cases). Polycystic ovary syndrome (PCOS) accounted for 26.8% (11 cases). Hyperprolactinemia affected 13.88% (5 cases), and hypothyroidism was responsible for 7.3% (3 cases). Additionally, 4.8% (2 cases) had both hypothyroidism and PCOS, followed by hypothalamic-pituitary-ovarian (HPO) axis dysfunction in 16.66% (6 cases). No cases of immune thrombocytopenic purpura, Factor VIII deficiency, or Von Willebrand disease were recorded.

Table 4: Distribution of cases according to complaints other than menstrual disorders

Variables	Number	Percentage (%)
Abdominal pain	21	10.24%
Leucorrhoea	24	11.70%

Volume 9, Issue 5; September-October 2026; Page No 187-195
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Variables	Number	Percentage (%)
Galactorrhoea	2	1.00%
Urinary complaints	18	8.80%
Sexual assault	11	5.36%
Pregnancy related to sexual assault	8	3.90%

Out of 205 participants, 21 (10.24%) had abdominal pain, 24 (11.70%) had white discharge (leucorrhoea), 2 (1%) had galactorrhoea, and 18 (8.80%) had urinary complaints. A total of 11 (5.36%) girls were brought to the hospital as victims of sexual assault, with 8 (3.90%) cases presenting with pregnancy resulting from sexual assault.

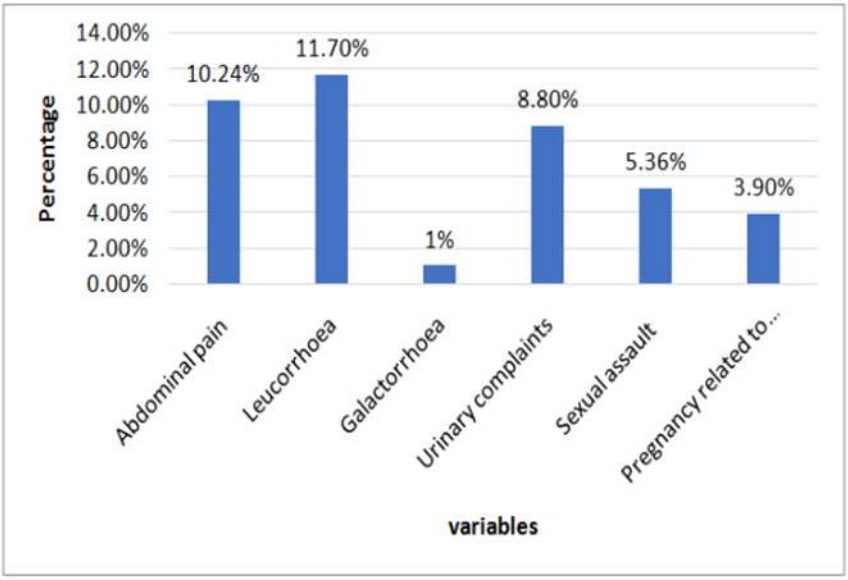


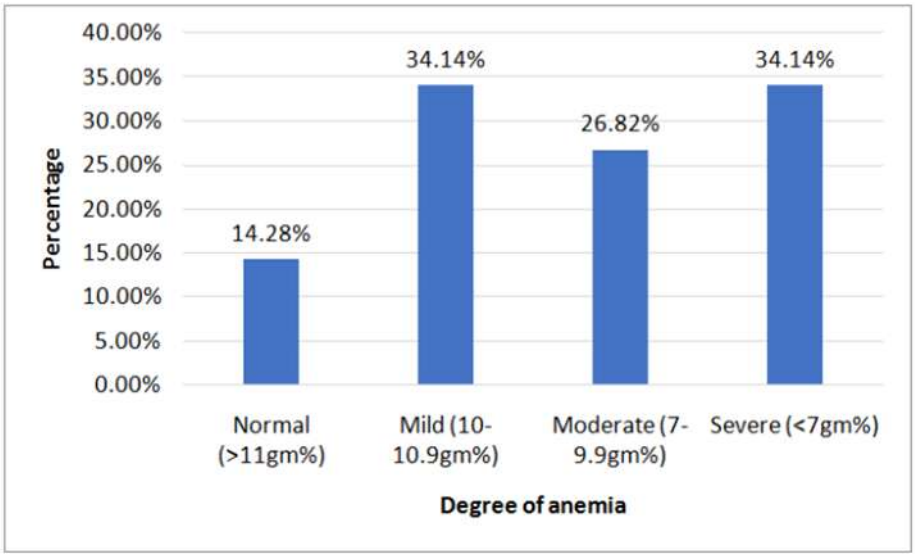
Table No.5 Distribution of cases according to association of heavy menstrual bleeding with anemia

Anemia Severity	Hemoglobin Level	No. of Cases with Heavy Menstrual Bleeding	Percentage (%)
Normal	>11 gm%	2	14.28%
Mild	10–10.9 gm%	14	34.14%
Moderate	7–9.9 gm%	11	26.82%

Volume 9, Issue 5; September-October 2026; Page No 187-195
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Anemia Severity	Hemoglobin Level	No. of Cases with Heavy Menstrual Bleeding	Percentage (%)
Severe	<7 gm%	14	34.14%

Among the adolescent girls presenting with heavy menstrual bleeding, 14 (34.14%) had mild anemia (10–10.9 gm%), 11 (26.82%) had moderate anemia (7–9.9 gm%), and 14 (34.14%) suffered from severe anemia (<7 gm%). Normal hemoglobin levels (>11 gm%) were documented in 2 (14.28%) cases.



Discussion

The age distribution shows that 14.1% of cases were in the age group of 10–14 years, 40.9% were aged 15–17 years, and 44.8% were aged 18–19 years, indicating a predominantly older adolescent population. Balen et al. (2002) (7) also reported that 45% of cases were in the age group of 15–17 years and 40% in the age group of 18–19 years.

This study shows that menstrual disorders are the commonest gynaecological problems (77.07%) in adolescent girls and the primary reason for OPD consultation. Heavy menstrual bleeding was the most common menstrual complaint, reported by 27.89% of the participants. This pattern is supported by Snook et al. (2012) (8), who found that heavy menstrual bleeding was the most common complaint among 30% of adolescents. Similarly, Vani et al. (2020) (9) reported that 28% of adolescents had heavy menstrual bleeding. In this study, heavy menstrual bleeding was seen in 41 cases, and 14 out of 41 cases needed hospital admission in view of severe anaemia (Hb less than 7 gm%) requiring blood transfusion. Out of 41 cases, 14 had anovulatory cycles and responded well to conservative management such as antifibrinolytics, oral contraceptive pills, and oral progesterone.

Amenorrhoea, including primary and secondary, was present in 31 girls. Among the primary amenorrhoea cases, Müllerian agenesis affected 50% of cases, 1 was a case of imperforate hymen, and 1 of transverse vaginal septum. These findings are consistent with Kumari A (2013) (3), who reported that Müllerian agenesis accounted for 85% of primary amenorrhoea cases and imperforate hymen in 7% of cases. Only one case of primary amenorrhoea presented with cyclical abdominal pain and retention of urine due to an imperforate hymen in a study done by Pegu B et al. (2018) (10).

Secondary amenorrhoea was primarily caused by PCOS, which affected 62.96% of participants. Hypothyroidism was the cause in 11.11%, and a combination of PCOS and hypothyroidism affected 7.40%. Other causes included hyperprolactinaemia (11.11%) and tubo-ovarian mass (7.40%). These findings align with Snook et al. (2012) (8), who

Volume 9, Issue 5; September-October 2026; Page No 187-195
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reported that PCOS accounted for 60% of secondary amenorrhoea cases and hyperprolactinaemia for 15%. Vani et al. (2020) (9) also found that PCOS was the leading cause in 65% of cases and hypothyroidism in 10%.

Out of 205 participants, 21 (10.24%) had abdominal pain, 24 (11.70%) had leucorrhoea, 2 (1%) had galactorrhoea, and 18 (8.8%) had urinary complaints. These findings are supported by Balen et al. (2002) (7), who reported that 10% of participants had abdominal pain, 12% had leucorrhoea, and 9% had urinary complaints. Snook et al. (2012) (8) also found similar results, with abdominal pain in 12%, leucorrhoea in 14%, and urinary complaints in 10%. Additionally, 11 (5.36%) cases presented as victims of sexual assault, and 8 adolescent girls (3.90%) had pregnancy due to sexual assault. In comparison, Goswami P et al. (2015) (11) reported that 2.66% presented with sexual assault, and Shivkumar HC et al. (2015) (2) reported a 2% incidence of sexual assault cases.

Conclusion

Adolescent gynaecology is an important sub-specialized domain of gynaecology. The importance of reproductive health problems among adolescents has emerged tremendously during recent years. Endocrine abnormalities like PCOS are associated with future reproductive as well as metabolic morbidity; therefore, it is vital to evaluate and manage endocrine abnormalities in adolescents properly to secure a healthy reproductive life.

Menorrhagia severely affects quality of life at all stages. Effective management of puberty menorrhagia is mandatory in order to prevent adolescents from developing severe anaemia. Because adolescent girls are the direct reproducers of the future generation, avoiding anaemia during adolescence and before pregnancy is crucial to reducing long-term perinatal and maternal morbidity and mortality.

Teenage problems need to be dealt with utmost sensitivity. Counselling teenage girls as well as parents is an integral part of treatment strategies. Awareness regarding health, nutrition, and hygiene should be routinely included in counselling to curtail problems like anaemia and leucorrhoea. Because these clinical challenges are specific to this age group, establishing dedicated "Adolescent Gynaecological Clinics" is the need of the hour.

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Volume 9, Issue 5; September-October 2026; Page No 187-195
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Volume 9, Issue 5; September-October 2026; Page No 187-195

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