

# Study of gynecological problems of adolescent girls attending gynaecology outpatient department at tertiary care center

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## Abstract

**Background:** The most striking change in adolescent girls is the onset of menstruation. After menarche, common menstrual abnormalities that the female adolescent may encounter include premenstrual syndrome, dysmenorrhea, prolonged menstrual bleeding, and emotional disturbances. In present study, we evaluated gynaecological problems of adolescent girls attending outpatient gynaecology department at tertiary care centre. **Material and Methods:** Present study was prospective, observational study, conducted in adolescent girls (10-19 years age) attending to the outpatient department of Obstetrics and gynaecology suffering from various gynaecological problems, willing to participate. **Results:** During study period, total 396 adolescent girls visited gynaecology outpatient department were considered for present study. Most cases belonged to 17-19 years age (52.8 %) followed by 14-16 years age (37.4 %) In study cases, menstrual complaints (67.7 %) were most common indication to visit OPD, followed by complaints like irregular cycles (48.5 %), pain in abdomen (29.8 %), abnormal vaginal discharge (13.9 %), acne and hirsutism (13.6 %) and obesity (11.4 %). Other less common complaints were delayed puberty (4.5 %), Bartholin cyst/abscess (3.3 %), breast diseases (2.8 %), mass per abdomen (0.8 %) and urogenital malformations (0.8 %). On basis of history and relevant investigations, menstrual cycle related gynaecological problems such as dysmenorrhea (24.7 %), oligomenorrhoea (19.7 %), menorrhagia (16.9 %), metrorrhagia (14.9 %) and hypomenorrhoea (11.4 %) were noted. Amenorrhoea was noted in 9.8 % cases, 1.5 % had primary amenorrhoea while 8.3 % cases had secondary amenorrhoea. Other problems were anaemia (28.8 %), urinary tract infection (19.7 %), PID (12.4 %), teenage pregnancy (2.3 %) and ovarian cyst (1.0 %). **Conclusion:** In present study menstrual cycle related gynaecological problems (dysmenorrhoea, oligomenorrhoea, menorrhagia, hypomenorrhoea, amenorrhoea), anemia, urinary tract infection and PID were common in adolescent girls attending gynaecology OPD.

**Keywords:** adolescent girls, menarche, gynaecological problems, PCOD (Polycystic ovarian disease)

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## INTRODUCTION

Adolescence is a transition period from childhood to adulthood and is characterized by a spurt in physical,

endocrinal, emotional and mental growth, with a change from complete dependence to relative independence.<sup>1</sup> The most striking change in adolescent girls is the onset of menstruation. After menarche, common menstrual abnormalities that the female adolescent may encounter include premenstrual syndrome, dysmenorrhea, prolonged menstrual bleeding, and emotional disturbances, 75% of girls experience some problems associated with menstruation.<sup>2</sup> Many adolescents girls with menstrual disturbances never present to their family doctor or gynaecologist due to embarrassment about discussing menstruation, fear of disease, and ignorance about available services may lead to delayed presentation. Failure to diagnose and treat conditions like congenital defects, neglected infections acquired in childhood,

endocrinopathies, physical and psychological trauma of sexual abuse and tumours can cast their shadow on future reproductive health of the individual. In present study, we evaluated gynaecological problems of adolescent girls attending outpatient gynaecology department at tertiary care centre.

### MATERIAL AND METHODS

Present study was prospective, observational study, conducted in outpatient Department of Obstetrics and Gynecology, Government Medical College Jammu, India. Present study was conducted from January 2019 to December 2020 (2 years). The study was conducted after ethical clearance from the institutional ethical committee.

**Inclusion criteria:** Adolescent girls (10-19 years age) attending to the outpatient department of Obstetrics and

gynaecology suffering from various gynaecological problems, willing to participate.

**Exclusion criteria:** Adolescent girls previously interviewed and coming for follow up for similar complaints. Adolescents girls not willing to participate in the study.

A detailed history of gynaecological problems, menstrual and medical history was taken. Patients underwent general examination, physical examination including height and weight, secondary sexual characters. Investigations like complete haemogram, routine urine examination, blood sugar, coagulation profile, hormonal, assays (FSH, LH, Prolactin, and TSH) and pelvic ultrasound were done whenever required. Data was collected and compiled using Microsoft Excel. Statistical analysis was done using descriptive statistics.

### RESULTS

During study period, total 396 adolescent girls visited gynaecology outpatient department were considered for present study. Most cases belonged to 17-19 years age (52.8 %) followed by 14-16 years age (37.4 %)

**Table 1:** Age distribution

Age (In years)	Number of cases (n=396)	Percentage
10-13	39	9.8
14-16	148	37.4
17-19	209	52.8

In study cases, menstrual complaints (67.7 %) were most common indication to visit OPD, followed by complaints like irregular cycles (48.5 %), pain in abdomen (29.8 %), abnormal vaginal discharge (13.9 %), acne and hirsutism (13.6 %) and obesity (11.4 %). Other less common complaints were delayed puberty (4.5 %), Bartholin cyst/abscess (3.3 %), breast diseases (2.8 %), mass per abdomen (0.8 %) and urogenital malformations (0.8 %).

**Table 2:** Distribution Of complaints

Complaints	Number of cases (n=396)	Percentage
Menstrual complaints	268	67.7
Irregular cycles	192	48.5
Pain in abdomen	118	29.8
Abnormal vaginal discharge	55	13.9
Acne and hirsutism	54	13.6
Obesity	45	11.4
Delayed puberty	18	4.5
Bartholin cyst/abscess	13	3.3
Breast diseases	11	2.8
Mass per abdomen	3	0.8
Urogenital malformations	3	0.8

On basis of history and relevant investigations, menstrual cycle related gynaecological problems such as dysmenorrhea (24.7 %), oligomenorrhoea (19.7 %), menorrhagia (16.9 %), metrorrhagia (14.9 %) and hypomenorrhoea (11.4 %) were noted. Amenorrhoea was noted in 9.8 % cases, 1.5 % had primary amenorrhoea while 8.3 % cases had secondary amenorrhoea. Other problems were anaemia (28.8 %), urinary tract infection (19.7 %), PID (12.4 %), teenage pregnancy (2.3 %) and ovarian cyst (1.0 %).

**Table 3:** Gynaecological problems observed

Gynaecological problems	Number of cases (n=396)	Percentage
Menstrual cycle related		
Dysmenorrhoea	98	24.7
Oligomenorrhoea	78	19.7
Menorrhagia	67	16.9
Metrorrhagia	59	14.9

Hypomenorrhea	45	11.4
Amenorrhea	39	9.8
Primary amenorrhea	6	1.5
Secondary amenorrhea	33	8.3
others		
Anaemia	114	28.8
Urinary Tract Infection	78	19.7
PID	49	12.4
Teenage pregnancy	9	2.3
Ovarian cyst	4	1.0

Secondary amenorrhoea (84.6 %) was most common among amenorrhea cases, most of them had polycystic ovarian disease (71.8 %) diagnosed as per Amsterdam's criteria, others have hypothyroidism (28.2 %), hyperprolactinemia (12.8 %), hyperandrogenism (10.3 %), hyperglycemia/elevated fasting insulin (5.1 %), Among cases of primary amenorrhoea (15.4 %), 2 cases had Mullerian agenesis (5.1 %), 3 cases had hypogonadotrophic hypogonadism (7.7 %) and 1 case had testicular feminising syndrome (2.6 %),

**Table 4: Etiology of amenorrhea**

Etiology	Number of cases (n=39)	Percentage
Primary amenorrhoea	6	15.4
Mullerian agenesis	2	5.1
Hypogonadotrophic hypogonadism	3	7.7
Testicular feminising syndrome	1	2.6
Secondary amenorrhoea	33	84.6
Polycystic ovarian disease	28	71.8
Hypothyroidism	11	28.2
Hyperprolactinemia	5	12.8
Hyperandrogenism	4	10.3
Hyperglycemia/Elevated Fasting Insulin	2	5.1

## DISCUSSION

Gynaecological problems of adolescent girls is a different spectrum of gynaecological disorders, because of the nature of problems which are unique, special and specific for the age group. Gynaecological problems of this age group are associated with psychological factors which are very important in the growth and psychological development of any girl in the transition between childhood and womanhood. Childhood obesity, sedentary lifestyle, lack of exercises, and popularity of junk food in adolescence are responsible for the increasing PCOS incidence in adolescent girls and is challenge for gynaecologists treating them. Also, teenage pregnancy is also a frequent problem seen in girls from rural area. Teenage pregnancy associated with a significantly higher risk of pregnancy induced hypertension, eclampsia, premature onset of labour and increased neonatal morbidity and mortality.<sup>3</sup> Anandhi A. *et al.*,<sup>4</sup> studied awareness and different gynaecological problems in 500 adolescent girls attending gynaecology OPD. Menstrual complaints were the commonest indication for OPD consultation, 22% had dysmenorrhoea, 31% had DUB, 13% had leucorrhoea as their primary symptom and 3.8% presented with primary amenorrhoea. Anaemia was the major health issue seen among 60% of the adolescents. Violent situations were seen in among 2.6% of adolescent families. 90% of the adolescents were aware of STD. 26%

of married adolescents and 20% of adolescents who were not married were aware about the various methods of contraception. Hirani G<sup>5</sup> studied 400 adolescent girls (10-19 years) presenting with gynaecological complaints presenting at gynaecology OPD, dysmenorrhea was the most prevalent complaint in the early adolescent group. Menstrual disorders were the most common presentation to the adolescent gynaecological outpatient department followed by abnormal vaginal discharge. Among menstrual disorders dysmenorrhea was the most common 42.5%, irregular menses 24.07%, and heavy menstrual bleeding 14.8%. Similar findings were noted in present study. Lalitha S<sup>6</sup> noted that incidence of gynaecological problems was 6.25%. Different gynaecological problems were menstrual disorders ( 60% ), leucorrhoea ( 10.66% ), infections ( 8% ), ovarian cyst ( 5.33%), sexual assault (2.66% ), teenage pregnancy (10.66% ) and infertility ( 2.66% ). Majority of girls with menstrual disorders suffered from puberty menorrhagia (55.55%). Abnormal uterine bleeding was diagnosed in 74.28% of girls suffering from puberty menorrhagia. Pelvic inflammatory disease was exclusively seen in married adolescent girls (8 %). Vaginal atresia and imperforate hymen were causes of primary amenorrhoea (4.44 %). PCOD was the commonest cause of secondary amenorrhoea amongst adolescents (17.77 %). Similar findings were noted in present study. Anaemia is a primary contributor to maternal mortality and

is associated with progressive physical deterioration of girls aged 10–19 years. Nutritional deprivation, increased demand of adolescents body, excessive menstrual blood loss all aggravate and exacerbate anaemia and its effects. Narasimhaiah A *et al.*,<sup>7</sup> studied 351 adolescent girls attending the gynaecology OPD, teenage pregnancy (38.4 %) was the commonest indication for OPD consultation among adolescent girls followed by irregular cycle (17.9 %). Menorrhagia may be an important clinical manifestation in inherited bleeding disorders and needs to be evaluated especially for ITP, vWD, and factor VIII deficiency. Rathod AD *et al.*,<sup>8</sup> studied 655 adolescent girls, menstrual complaints (84.88 %) were the commonest indication for OPD consultation. 17 girls required hospitalization; all of them needed blood transfusion due to significant severe anaemia resulting from puberty menorrhagia. 14 (82.35 %) had anovulatory DUB, while 2 (11.76 %) had coagulation disorders, and one (5.88 %) had hypothyroidism. Adolescent girls with menorrhagia need to be evaluated thoroughly earlier rather than later so that effective management can be started and severe anaemia with its consequences can be avoided. Government of India has already taken the initiative through ARSH (adolescent- friendly reproductive and sexual health services). It also includes counselling about common concerns and problems related to menstruation, balanced nutritious diet. Iron–folic acid supplementation to all adolescents is given, considering the need of iron with the onset of menstruation. In schools, adolescent girls should be screened for menstrual problems and health education regarding the menstrual problems and its management should be provided. It helps to prevent various gynaecological complaints that occur in their future life. Multi-pronged interventions are the need of the hour to raise awareness about the healthcare- seeking behaviour for gynaecological morbidities, especially in rural areas.<sup>9</sup>

## CONCLUSION

In present study menstrual cycle related gynaecological problems (dysmenorrhea, oligomenorrhoea, menorrhagia, hypomenorrhoea, amenorrhoea), anaemia, urinary tract

infection and PID were common in adolescent girls attending gynaecology OPD. Setting up a separate adolescent clinics is necessary for efficient management of menstrual disorders in adolescents, targeted health education and behavioural change.

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