

Prevalence of various gynecological problems in adolescent girls 10-19 years of age attending outpatient Department at tertiary care institute of Bhuj, Kutch, Gujarat, India

Hirani G.^{1*}, Hirani M.²

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^{1*} Gopal Hirani, Associate Professor, Department of Obstetrics and Gynaecology, Gujarat Adani Institute of Medical Science, Kutch, Gujarat, India.

² Madhav Hirani, MS, Department of Obstetrics and Gynaecology, Hirani Hospital, Kutch, Gujarat, India.

Background and Aim: Various adolescent Gynecological problems are menstrual disorders like abnormal uterine bleeding, primary amenorrhoea, PCOD, puberty menorrhagia leading to severe anemia, sexual abuse, pregnancy-related problems, adnexal masses, endocrinopathies, etc. The present study was done with an aim to study the prevalence, etiological factors of various gynecological problems in adolescent girls 10-19 years of age, attending to the outpatient Department of Gynecology, Gujarat Adani Institute of Medical Science, Bhuj, Kutch, Gujarat.

Material and Methods: Present observational study was conducted on 400 Adolescent girls (10-19 years) presenting with gynecological complaints presenting at the Department of Gynecology, Gujarat Adani Institute of Medical Science, Bhuj, Kutch, Gujarat for the period of one year. **Results:** Dysmenorrhea was the most prevalent complaint in the early adolescent group. Menstrual disorders were the most common presentation to the adolescent gynecological 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%. **Conclusion:** Menstrual problems are the commonest reason for gynecological OPD consultation among adolescent girls. Evaluation of bleeding problems in adolescents is justified, before considering them as the normal physiological transition. Though adolescents constitute only about 5% of all patients attending the gynaec outpatient department, adolescent gynecological problems are unique and specific regarding presentation, diagnosis, and management of their problems is important for their future reproductive health.

Keywords: Dysmenorrhea, Kutch, Menstrual problems, Vaginal discharge

Corresponding Author

Gopal Hirani, Associate Professor, Department of Obstetrics and Gynaecology, Gujarat Adani Institute of Medical Science, Kutch, Gujarat, India.
Email: madhavhirani@gmail.com

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Introduction

Adolescence is a period of enormous physical and psychological change for young girls. As per WHO, adolescence includes the age group of 10–19 years. Adolescents constitute over 21.4% of the population in India [1]. Adolescents have the lowest mortality among the different age groups and have therefore received low priority. Nutritional deprivation, increased demand of an adolescent's body, and excessive menstrual loss, all aggravate and exacerbate the anemia and its effects. Menstrual disturbances are not uncommon and may add further disruption during this difficult phase for adolescents and their families.

Many adolescents with menstrual disturbances never present to their family doctor or gynecologist. Embarrassment about discussing menstruation, fear of disease, and ignorance about available services may lead to delayed presentation. Various adolescent Gynecological problems are menstrual disorders like abnormal uterine bleeding, primary amenorrhoea, PCOD, puberty menorrhagia leading to severe anemia, sexual abuse, pregnancy-related problems, adnexal masses, endocrinopathies, etc. adolescent girls with puberty menorrhagia need to be investigated for coagulation disorders [2].

The most common coagulation abnormality diagnosed was idiopathic thrombocytopenic purpura, followed by von Willebrand disease [2]. Endocrine dysfunctions like hypothyroidism, hyperprolactinemia can cause amenorrhea or irregular bleeding. Infections like tuberculous endometritis can present primary amenorrhoea. About 40- 50% suffer from Dysmenorrhea of varying severity ranging from minimal discomfort to severe pelvic pain with headache, nausea and vomiting, diarrhea or constipation, fainting, premenstrual symptoms such as tender breasts and swollen abdomen, which may continue throughout the period [3].

Dysmenorrhea is a very common problem among adolescent girls, Studies from India reported the prevalence range between 50 to 87.8% and another study in 1648 adolescent girls in selected districts of Karnataka, the incidence of dysmenorrhea was found to be 87% [4]. Many adolescents with menstrual disturbances never present to their family doctor or gynecologist. Embarrassment about discussing menstruation, fear of disease, and ignorance about available services may lead to delayed presentation.

Sexual abuse of adolescent girls will have a profound and potentially lifelong psychological effect. Unprotected coitus, sex abuse, and repeated unsafe abortions have increased the rate of PID and ectopic pregnancies. Women survivors of childhood sexual abuse are at risk for early unplanned pregnancy, STDs, prostitution, further sexual abuse, antisocial behavior, running away from home, lying, stealing, eating disorders and obesity, and multiple somatic symptoms [5]. They are more likely to engage in health-risk behaviors such as smoking, substance abuse, and early sexual activity with multiple partners. Adolescents may present with Pelvic masses like Functional ovarian cyst, obstructing vaginal/uterine anomalies, ovarian tumor Tubercular mass, pelvic kidney. In adolescents, most commonly are functional or benign neoplastic ovarian masses, Mature cystic teratoma is the most frequent neoplastic tumor of children and adolescents [6]. The primary diagnostic technique for evaluating pelvic masses in adolescents is ultrasonography (or) if the results of the ultrasonography examination are inconclusive, CT, or MRI [6]. Obstructive genital anomalies like imperforate hymen to transverse vaginal septa vaginal agenesis present with primary amenorrhea and pelvic mass. PCOD, obesity, endocrinopathies are increasing in incidence in the adolescent age group due to changes in lifestyle patterns, sedentary life, faulty eating habits [7].

The present study was done with an aim to study the prevalence, etiological factors of various gynecological problems in adolescent girls 10-19 years of age, attending to the outpatient Department of Gynecology, Gujarat Adani Institute of Medical Science, Bhuj, Kutch, Gujarat.

Material and Methods

Study Setting and study duration- Present observational study was conducted on 400 Adolescent girls (10-19 years) presenting with gynecological complaints presenting at the Department of Gynecology, Gujarat Adani Institute of Medical Science, Bhuj, Kutch, Gujarat, India for the period of one year.

Ethical consideration and permission- The study was conducted after ethical clearance from the institutional ethical committee.

Inclusion criteria- All adolescent girls in the age group of 10-19 years attending to the outpatient department of Obstetrics and gynecology suffering

From various gynecological problems like menstrual disorder, acne, hirsutism, per vaginal discharge, breast disease, weight and height problems, lump abdomen and urogenital malformations, etc. were included.

A detailed history of gynecological problems and other associated problems will be taken. In addition to the general examination, physical examination including height and weight, secondary sexual characters, presence of any congenital anomalies were recorded and data regarding sociodemographic factors collected in a predesigned questionnaire/proforma. Investigations like complete haemogram, routine urine examination, blood sugar, coagulation profile, hormonal, assays (FSH, LH, Prolactin, and TSH) and pelvic ultrasound will be done when required. The data will be incorporated into an excel sheet and analyzed using an appropriate statistical method.

Statistical analysis- The recorded data was compiled and entered in a spreadsheet computer program (Microsoft Excel 2007) and then exported to the data editor page of SPSS version 15 (SPSS Inc., Chicago, Illinois, USA). Descriptive statistics included computation of percentages, means, and standard deviations. For all tests, confidence level and level of significance were set at 95% and 5% respectively.

Results

In the present study analyzing the age distribution of adolescents 92.5% (370 Cases) belong to late adolescence and 7.5% (30 cases). 10-14 years is defined as an early adolescent. 15-19 years is defined as a late adolescent. Most of the adolescents (48.9%) belong to the age group 19 and 18 years, 17.05% belong to 16 years, 15.90% belong to 17 years, 7.90 belong to 15 years, 5.25% belong to 14 years, 2.2% belong to 12 years and only 0.40% belong to 11 years. Among the study subjects 80% (320) were educated up to primary school level and 20% were illiterates. Most of the adolescent girls came from rural areas 70% (280). Analyzing the socio-economic status of the study subjects of the present study taking modern Kuppuswamy's classification 65% (260) belong to lower socioeconomic status, 22.5%(90) middle, and 12.5% (50) belong to middle and upper socioeconomic status respectively. About 15% (60) of adolescents were married, remaining 85% (340) were unmarried. Dysmenorrhea was the most prevalent complaint in the early adolescent group.

Menstrual disorders were the most common presentation to the adolescent gynecological outpatient department followed by abnormal vaginal discharge (Table 1). Among menstrual disorders dysmenorrhea was the most common 42.5%, irregular menses 24.07%, and heavy menstrual bleeding 14.8%. Dysfunctional uterine bleeding was the most common cause of menstrual disorders accounting for 43.5%, followed by PCOS. Among 40 cases of heavy menstrual bleeding severe anemia was present in about 12% of cases, while 62% and 26% of mild and moderate anemia cases were found respectively. Among 6 cases presented with primary amenorrhoea, 5 cases had Mullerian agenesis, 1 case had an imperforate hymen. Among 19 cases of secondary amenorrhoea 19 cases have PCOD, 4 cases have hypothyroidism and 4 cases have psychological stress due to exams which may be the underlying cause for secondary amenorrhoea. In the present study Mullerian agenesis was the most common cause of primary amenorrhea and PCOS was the most common cause of secondary amenorrhea (Table 2).

Table 1: Gynecological problems in adolescents.

Gynecological problem	Number of cases	Percentage (%)
Menstrual disorders	270	67.5
Pain abdomen	4	1
Abnormal vaginal discharge	49	12.2
Migraine	2	0.5
Delayed puberty	3	0.75
UTI	10	2.5
Bartholin ABSCEs	4	1
Acne and hirsutism	20	5
Breast diseases	9	2.25
Obesity	23	5.75
Mass per abdomen	2	0.5
Urogenital malformations	4	1
Neoplasms	0	0
Total	400	100

Table-2: Types of menstrual disorders in adolescent girls.

Menstrual disorders	Number of cases	Percentage (%)
Dysmenorrhoea	115	42.5
Heavy menstrual bleeding	40	14.8
Amenorrhoea	25	9.2
Metrorrhagia	5	1.8
Irregular menses	65	24.07
Oligomenorrhoea	11	4
Hypomenorrhoea	9	3.3
Total	270	100

Discussion

In this study various adolescent gynecological problems were studied and their associated comorbid conditions were analyzed. Adolescents suffer from various Gynecological problems delayed puberty, menstrual disorder, Acne/Hirsutism, abnormal vaginal discharge, breast disease, obesity, height problem, lump abdomen, teenage pregnancy, sexual assault, labia majora abscess, urogenital malformation, neoplasms.

There were a total of 400 subjects, presenting with various gynecological problems. Among the 400 cases, late adolescents i.e. between 15-19 years were 370 compared to early adolescents 10-14 years of about 30. With the majority being uneducated, this needed much more meticulous counseling and education to both the mother and the adolescent. The major gynecological problem being white discharge PV, candidiasis was the commonest cause of pathological discharge among married and trichomonas vaginitis among unmarried adolescents. There was no difference in the presenting complaints between unmarried and married adolescents. Dysfunctional uterine bleeding was found to be the most common cause of menstrual dysfunction in both married and unmarried girls. Heavy bleeding can be treated with

(1) Oral medroxyprogesterone 1mg TDS/day for 14days.

(2) Medroxy progesterone acetate 150mg intramuscularly every 12weeks.

(3) Progesterone can also be used for medical curettage, in the form of Norethisterone acetate 20–30g daily for 3days to arrest hemorrhage. It may then be continued at a lower dose for up to 21days. Withdrawal bleeding will occur on the stoppage of the treatment that lasts for 4–5days.

(4) Combined oral contraceptives can be used unless contraindicated. Oral contraceptive pills taper using monophasic pills can also be given.

(5) In severe bleeding associated with hemodynamic changes, administration of intravenous conjugated estrogen 25mg IV every 4hours for up to 24hours is indicated. Then oral estrogen can be substituted. Most of the adolescents belong to rural, urban, and semi-urban areas, belonging to the lower socio-economic status which was no way different from their counter subjects.

The prevalence of various gynecological problems in this study was menstrual dysfunction (67.5%), abnormal vaginal discharge (12.2%), UTI (2.5%), acne and hirsutism (5%), breast diseases (2.25%), urogenital malformations (1%), which is comparable to other studies [8,9].

In another study, Prachi Koranne et al. found that 50 % of girls with puberty menorrhagia were in the age group of 13–15 years and 62 % of the girls had onset of menorrhagia within 6 months of menarche [10]. Gillani et al. found that 37 % of girls with puberty menorrhagia were in the 12–13 years age group and 45 % of girls were above 13 years of age. 11.42 % girls had onset of menorrhagia within 6 months of menarche, 31.42 % girls had between 6 months and 1 year, and 37.14 % had onset of menorrhagia after 1 year of menarche [11].

Mass per abdomen and pain abdomen 0.5%, in comparison with other studies Goswami et al [12]67.05% have menstrual disorders, in Ramaraju et al [13] study 745 have menstrual disorders, 17% have abnormal vaginal discharge and 4% have neoplasms

In all Indian studies [1,13-15] menstrual disorders were the predominant symptom, followed by abnormal vaginal discharge, Mullerian anomalies, mastalgia, etc. The most prevalent complaint among menstrual disorder was dysmenorrhea, followed by irregular menses, heavy menstrual bleeding, amenorrhea, oligomenorrhea, hypomenorrhea, metrorrhagia in comparison with other studies.

In the current study dysmenorrhea was the commonest complaint of 115 girls (42.5%) among them 30 girls had severe dysmenorrhea, hindering their daily routine Nutritional deprivation, increased demand of the adolescent's body, and excessive menstrual loss, all aggravate and exacerbate the anemia and its effects. Menstrual disturbances are not uncommon and may add further disruption during this difficult phase for adolescents and their families.

There were a total of 65 cases presented with irregular menstrual cycles have PCOD. Rotterdam criteria were used for diagnosing the cases. The majority showed menstrual dysfunction with oligomenorrhea, secondary amenorrhea, irregular cycles, menorrhagia, hypomenorrhea, and menometrorrhagia and 15 cases presenting with excess weight gain.

Another Indian study [15] of adolescent PCOS showed the following presentation -menorrhagia 33%, oligomenorrhea 33%, secondary amenorrhea 26.7%, acne/hirsutism 6.67%, this was similar to the present study. Mullerian agenesis was the commonest cause of primary amenorrhea and PCOS was the commonest cause of secondary amenorrhea, this was similar in comparison with other Indian studies [14,15].

Menstrual abnormalities are the most common problem of adolescents. Many adolescents with menstrual disturbances never present to their family doctor or gynecologist. Embarrassment about discussing menstruation, fear of disease, and ignorance about services available may lead to delayed presentation or consultation with the doctor. Any organic pathology therefore should be evaluated timely so as to improve the quality of life. Setting up of separate adolescent clinics is desirable for efficient management.

Menstrual problems are the commonest reason for gynecological OPD consultation among adolescent girls. Evaluation of bleeding problems in adolescents is justified, before considering them as the normal physiological transition. The limitation of this study is the study cannot be generalized to the whole population.

Conclusion

Menstrual problems are the commonest reason for gynecological OPD consultation among adolescent girls. Evaluation of bleeding problems in adolescents is justified, before considering them as the normal physiological transition. Though adolescents constitute only about 5% of all patients attending the gynaec outpatient department, adolescent gynecological problems are unique and specific regarding presentation, diagnosis, and management of their problems is important for their future reproductive health. There is a need for adolescent clinics in busy outpatient departments to provide privacy for adolescents and their mothers to discuss their problems without embarrassment.

What does the study add to the existing knowledge?

Adolescent girls with menorrhagia need to be evaluated thoroughly earlier rather than later with the onset of symptoms so that effective management can be started, and anemia with its consequences can be prevented.

Health education classes to create awareness regarding adolescent gynecological problems with the help of a menstrual calendar should be conducted regularly in school and colleges. Avoidance of junk food, a healthy lifestyle, yoga, etc. must be encouraged in adolescent girls. It must be a part of the school health program.

Author's contribution

Dr. Gopal Hirani: Formulated the aims and objectives with study design and helped in data collection from the medical record department.

Dr. Madhav Hirani: Contributed to the preparation of the manuscript and data analysis.

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