

Study of Gynecological Problems among Adolescents in A Tertiary Care Hospital

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Abstract:

Background: This prospective observational study was conducted to study the various gynecological problems among adolescent girls presenting in a tertiary care hospital.

Materials and Methods: A total of 164 adolescent girls in the age group of 12 to 19 years who presented in our department at Nalanda Medical College from January 2019 to December 2019 with some gynecological complaint were evaluated by a detailed history, clinical examination and appropriate investigations.

Results: Menstrual disorders were the most common complaint i.e. in 117 out of 164 patients, followed by vaginal discharge (30), ovarian tumor (4), injury to perineum, sexual assault, ectopic pregnancy, abortion and infection. A total of 17 patients came with the complaint of menorrhagia with the underlying cause being DUB in majority of cases. Oligomenorrhea was seen in 23 patients, the leading cause of which was PCOD. 39 patients presented with amenorrhea, out of which 10 had primary amenorrhea. 1 patient had imperforate hymen while Mullerian agenesis was diagnosed in 3 patients. 29 patients had secondary amenorrhea. Other complaints included dysmenorrhea and breast problems.

Conclusion: Menstrual disorders are the most common problem encountered in the girls of adolescent age group. With the changes in lifestyle and dietary practices, PCOD has become very common in adolescent girls and is a significant cause of infertility in the reproductive age and metabolic disorders in the later part of their life. Teenage pregnancy and its complications are a major contributor to the disease burden in the developing countries.

Key words: Adolescent, menstrual disorder, PCOD, teenage pregnancy.

Date of Submission: 09-05-2020

Date of Acceptance: 22-05-2020

I. Introduction

The word Adolescence is derived from a Latin word "Adolescere" which means 'grow to maturity'. It is a transitional phase of physical, sexual and psychological development between puberty and adulthood. According to WHO, it includes individuals between 10 to 19 years of age⁽¹⁾. Adolescent girls comprise nearly 10% of the global population, 4 out of 5 such girls live in the developing countries like ours. Adolescent Gynecology is one of the important aspects of Gynecology but it has not been given much attention and living in a developing country we can contribute significantly towards its understanding and study. This study is has been conducted to explore the various gynecological problems encountered by adolescent girls living in our country.

II. Materials And Methods

This prospective observational study was conducted in the OPD and Emergency of Department of Obstetrics And Gynecology, Nalanda Medical College and Hospital, Patna, Bihar, India from January 2019 to December 2019. 164 patients fulfilling the inclusion criteria who were willing to participate in the study were selected.

Study Design : Prospective observational study

Study Location: Department of Obstetrics And Gynecology, Nalanda Medical College and Hospital, Patna, Bihar, India

Study Duration: January 2019 to December 2019

Sample Size: 164

Inclusion criteria:

1. Adolescent girls in the age group of 12 to 19 years presenting in the OPD and Emergency of department of Obstetrics & Gynecology NMCH, Patna during the study period
2. Willingness to participate in the study

Exclusion criteria:

1. Unwillingness to participate in the study

2. Any major surgical/medical illness

Procedure methodology

The study was approved by the ethical committee of the institute. The patients suitable for the study were selected. After taking written informed consent, detailed history was taken. Age of menarche, menstrual history, marital status, previous surgical and medical history were noted. General examination included height, weight pallor, secondary sexual characters and congenital anomaly if any. Based on the signs and symptoms appropriate investigations including complete hemogram, coagulation profile, urine examination, hormonal assay and transabdominal ultrasonography were advised. Based on the results of above investigations further management was done.

III. Results

164 adolescent girls were included in the study. The average age of menarche was 11 to 14 years. Majority of girls were underweight with BMI<19. This can be attributed to the widespread poverty and illiteracy in the general population.

Table 1: COMMON COMPLAINS

	NUMBER	PERCENTAGE
Menstrual disorders	117	71
Vaginal discharge	30	18
Ovarian cyst	4	2.43
Ectopic pregnancy	2	1.21
Abortion	2	1.21
Assault	2	1.21
Injury	1	0.60
Infection (UTI, PID)	6	3.65

Table-1 shows that menstrual disorder was the commonest problem among the adolescent girls and 117 out of 164 i.e. 71% suffered from it. It was followed by vaginal discharge. 30 out of 164 girls i.e. 18% of the adolescent girls presented with vaginal discharge. Majority of them had physiological discharge. They were counselled and explained about the normal vaginal discharge. Those who had pathological discharge were given symptomatic treatment. 6 girls presented with infection, out of which 3 were found to have UTI and 3 had PID. 4 girls were diagnosed with ovarian cyst on ultrasonography. 3 were diagnosed to have simple serous cyst and 1 had large dermoid tumor who later underwent laparotomy. Apart from these, there were 2 cases of ectopic pregnancy, abortion and sexual assault each. WHO estimates that 2.5 million adolescents have unsafe abortions annually⁽⁴⁾. It is a complex and challenging issue. We need to create awareness about negative health consequences and socio-economic causes. Few patients had breast problems like mastalgia and breast lump in addition to the above mentioned complains.

Table-2

PATTERN	NUMBER OF PATIENT
Regular	128
Oligomenorrhea	23
Metrorrhagia	10
Polymenorrhea	3

Table-2 shows the menstrual pattern in the study population, based on the duration and frequency of their menstrual cycle. Majority of them had regular menstrual pattern. However oligomenorrhea was complained by 23 out of 164 i.e. 14% of girls. Metrorrhagia was found in 6% and polymenorrhea in 1.82%. Although oligomenorrhea can be physiological in adolescence, in many girls the underlying cause of oligomenorrhea was PCOS. Some cases of PCOS also presented with amenorrhea. DUB is quite common in the adolescent population manifesting as metrorrhagia and polymenorrhea.

Table-3

PATTERN	NUMBER OF PATIENTS
Average blood loss	138
Menorrhagia	17
Hypomenorrhea	9

Table-3 shows the menstrual pattern in the study group based on the amount of blood loss during menstrual cycle. Majority of them had average blood loss while menorrhagia was seen in 17 patients i.e. 10.36% and hypomenorrhea in 9 patients i.e. 5.48% in the study group.

Table- 4: Pattern of Menstrual Disorder

MENSTRUAL DISORDER	NO OF PATIENTS	PERCENTAGE
Amenorrhea	39	23.78
Oligomenorrhea	23	14.02
Menorrhagia	17	10.36
Dysmenorrhea	16	9.75
Metrorrhagia	10	6.09
Hypomenorrhea	9	5.48
Polymenorrhea	3	1.82

Table-4 summarises the important menstrual disorders encountered in the study group. Amenorrhea is the most common menstrual disorder seen in 39 out of 164 patients followed by oligomenorrhea (23/164) and menorrhagia (17/164). Out of 16 cases of dysmenorrhea, 15 girls had primary dysmenorrhea. 1 girl who has secondary dysmenorrhea was diagnosed to have endometriosis. Although oligomenorrhea is physiological in majority of adolescent girls but in many patients the underlying cause was PCOS.

Table- 5: Causes of Amenorrhea

Primary Amenorrhea	Delayed Menarche	6
	Mullerian Agenesis	3
	Imperforate Hymen	1
	Turner Syndrome	0
Secondary Amenorrhea	Pregnancy	19
	PCOS	10

Table-5 elaborates the causes of amenorrhea in adolescent girls. Out of 39 girls with amenorrhea, 10 had primary amenorrhea and 29 had secondary amenorrhea. In the present study, primary amenorrhea accounted for 6.09% (10/164) of cases, which is similar to that reported by Sebanti et al⁽²⁾ (6.45%). The most common cause of primary amenorrhea is delayed menarche which is constitutional in majority of cases and is seen in 6 out of 10 cases. Mullerian agenesis was noted in 3 out of 10 and imperforate hymen was found in 1 out of 10 patients of primary amenorrhea. Turner syndrome was not seen in any case which is unlike the developed countries where it is more commonly seen. Secondary amenorrhea was complained by 29 patients, the most common cause being pregnancy. Secondary amenorrhoea due to teenage pregnancy accounted for 11.58% (19/164) cases in our study. This is higher than that reported by Sebanti et al⁽²⁾ (4.30%). PCOS was diagnosed in 10 out of 29 cases.

Table-6: Causes of Menorrhagia

DUB	11
PCOD	5
Hypothyroidism	1
Bleeding Disorders	0
Hyperthyroidism	0

Table-6 shows the causes of menorrhagia in the study group. Menorrhagia can be a symptom of some underlying pathology but in our study its most common association was that with DUB, which can be attributed to the immature hypothalamopituitaryovarian axis in the adolescents. It was seen in 11 out of 17 cases of menorrhagia followed by PCOD. 1 patient was diagnosed with hypothyroidism. Unlike other studies cases of bleeding disorders and hyperthyroidism were nil in our study.

IV. Discussion

Adolescents may have many problems and it is very difficult for a clinician to judge the exact nature of the problem because they are inexpressive and shy. This study showed that menstrual disorders (71%) are the commonest gynecological complain amongst the adolescent girls. In a similar study done by V Agarwal, et al similar results were obtained in which menstrual disorder was seen in 70.66% cases⁽⁵⁾. DUB is a common cause of menstrual irregularities⁽⁶⁾. It takes 2-5 years for HPO axis to mature. Majority of girls presenting with menorrhagia have anovulatory cycles and respond to medical management such as antifibrinolytics, oral progestogens and OCPs. Acute adolescent menorrhagia is often associated with bleeding disorders. Anaemia was a common association in the patients with menorrhagia. Among 17 patients with menorrhagia, 7 had Hb<6.5gm/dl, 6 had Hb between 7.9 to 6.5gm/dl and 4 had Hb>8gm/dl. 6 patients underwent blood transfusion because of the severe symptoms. Rest of the patients were given oral haematinics. Antifibrinolytics and hormonal preparations were prescribed in both cases.

Nowadays PCOS is showing a rising trend. PCOS based on clinical criteria of menstrual problem, features of hyperandrogenism and USG finding of multiple ovarian cysts was diagnosed in 10/29 cases of

secondary amenorrhoea. There were 5/17 cases of PCOS, who presented with menorrhagia. Few cases of menorrhagia also presented with oligomenorrhea, polymenorrhea and hypomenorrhea. Venturoli et al⁽³⁾ reports PCOS to be cause of irregular menses in one third (33%) of adolescent girls.

In this study vaginal discharge is the 2nd commonest complain. It can be physiological or pathological. Because of the early age of marriage these girls are prone to infections leading to vaginal discharge and PID. In cases of vulvovaginitis, Streptococcus group A is the most common pathogen followed by H. influenzae. Poor hygiene is a risk factor. Among infections, PID is more common in married girls owing to early age of sexual activity. UTI is also detected in this age group. In a similar study done in AIIMS, oligomenorrhea was seen in 24%, menorrhagia in 16%, dysmenorrhea in 12%, primary amenorrhea in 12% and infection in 12% of cases.

Teenage pregnancy is a serious problem in developing countries like India. It was reported in 11.58% of cases in our study. This is slightly higher than that reported by V Agarwal⁽⁵⁾ et al (10.33%). It is a threat for both mother and fetus⁽⁸⁾. It is further complicated by anaemia, ectopic pregnancy and unsafe abortion practices. It is an established risk factor for PIH especially eclampsia and preterm labor. Increased neonatal mortality and morbidity is seen in babies delivered to teenage mothers. Sexual assault was reported by 2 girls in this study. This may lead to infection, physical injury, scarred emotions, PTSD, depression, unwanted pregnancy and criminal abortion.

V. Conclusion

Teenage problems need to be dealt with sensitivity. Adolescent gynecology as a subject requires more attention. Awareness amongst adolescents is the need of the hour and counselling can be very helpful in it. Non judgemental behavior towards the adolescent can be of immense help. Apart from the tertiary care centres, adolescent clinics need to be established at the peripheral centers as well. Outreach services should be given at schools and other community centres. Adolescent clinics can be used for imparting education about pubertal changes, physiology of menstruation, menstrual hygiene, balanced diet, prevention of anemia, safe sex practices, STIs especially HIV and contraception. We can also use this opportunity to encourage the adolescent girls to go to the schools which will promote literacy among them.

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Dr. Swarnim Swati, et. al. "Study of Gynecological Problems among Adolescents in A Tertiary Care Hospital." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, 19(5), 2020, pp. 37-40.