Original Research Paper

Volume - 10 | Issue - 11 | November - 2020 | PRINT ISSN No. 2249 - 555X | DOI : 10.36106/ijar

Obstetrics and Gynaecology

ADOLESCENT GYNAE CLINIC-NEED OF THE DAY : A PROSPECTIVE STUDY AT A TERTIARY CARE CENTRE.

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ABSTRACT **Background:** To study common gynaecological problems in adolescent girls attending gynae OPD at tertiary centre and to establish the need of adolescent clinic.

Methods: A prospective study was conducted including 200 adolescent girls attending gynaecology OPD during April 2019-March 2020. Girls were evaluated by detailed history, thorough clinical examination and investigations such as C.B.C, coagulation profile, hormonal assay and ultrasound of abdomen and pelvis as and when indicated.

Results: Majority of girls had complaints related to menstrual disorders i.e.138 out of 200 (69%) . Most common type of menstrual abnormalities was puberty menorrhagia followed by dysmenorrhoea .DUB was most common cause of menrrhagia.

Conclusions: Problems are specific to this age group, setting up of separate adolescent clinics is desirable of efficient management where they can be provided adequate privacy to discuss their problems openly. By doing it we can give greater momentum to adolescent gynaecology

KEYWORDS : Adolescent, Adolescent clinic, Gynaecological problems, Menstrual disorder

INTRODUCTION

The word 'adolescence' is derived from the latin word adolescere ,which means to grow into maturity. The term adolescere was popularized 100 years ago ,when G. Stanely Hall used it to describe the second decade of life . Healthy adolescence, "the need of the hour". World Health Organization (WHO) has defined 'Adolescence' as the period between 10 and 19 years . [1 ,2] UNICEF defines adolescence in three stages:

- Early 10-13 years of age,
- Middle- 14-16
- Late- 17-19 years

"No longer a child, not yet a women", is a line which captures the ethos of adolescence beautifully.] Adolescents constitute 21.4% of the population in India . [3] It is the period where enormous physical and psychological, profound bodily changes, sexual development and altered emotional and behavior changes occur. Besides complex sequential and inter-linked neuroendocrine influences, genetic, nutritional and other environmental factors play an important role during this transitional period of life.The adolescent girls are highly susceptible to exogenous and endogenous influences at this crucial period. Gynecological problems of adolescents occupy a special space in the spectrum of gynecological disorders of all ages. This is because of the physical nature of the problems which are so unique, special and specific for the age group and also because of the associated and psychological factors which are very important in the growth and psychoogical remodeling of someone in the transition between childhood and womanhood. The mean age of attainment of menarche is between 12 - 13 years . We, as heath care providers, need to focus on these young people [4]

AIMS / OBJECTIVES : With this preview, a study has been done to evaluate the Gynaecological problems in adolescent attending gynecological OPD and emergency with aim to study types of problems,causative factors and treatment modalities in J.K. lon hospital kota.

METHODS :

A prospective study was conducted in the department of obstetrics and gynaecology at Government Medical College, J .K LON .Kota,Rajasthan India, including 200 adolescent girls attending gynaecology OPD from April 2019 till March 2020

Inclusion criteria

Adolescent females between the age group of 11 to 19 years.

Exclusion criteria

- Not willing to participate in the study
- Medical and surgical problems not relating to Gynaecology

A detailed history was taken. First ,the girl was interviewed regarding her problems and then girl's mother ,was interviewed to get the accurate details of any previous medical problems.The diagnosis of the condition requiring consultation was noted along with menstrual history and general physical examination including height and weight ,secondary sexual characters and any congenital anomalies was noted. All adolescent girls who presented to the gynaecological OPD were analysed regarding demographic profile, duration and severity of the symptoms, menstrual history, response to therapy and all investigations ex CBP, peripheral smear, blood grouping and RH typing, blood sugar, ,coagulation profile, hormonal assay (LH,FSH level ,serum prolactin levels, thyroid profile). USG of pelvis and abdomen and Urine Pregnancy test was also done for exclusion of Pregnancy in case of menstrual disturbance & menorrhagia. At the end of examination ,nature of problem was discussed with the girl and parent.Privacy ,comfort and friendliness were provided to the patient for getting any confidential information and sexual activity .

STATSTICAL ANALYSIS : By using Microsoft exel

***RESULTS*:** A total of 200 adolescent patients were evaluated for the present study belonging to age group of 11 to 19 years. The present study showed that majority of adolescent girls suffered from menstrual disorders, i.e. 138 out of 200 (69%). This was followed by vaginal discharge 32 out of 200 (16%), UTI 9 out of 200 (4.5%), teenage pregnancy 6 out of 200(3.0%), pelvic mass 4 out of 200 (2 %), sexual assault 2 out of 200 (1%). Menstrual disorder affects the majority of adolescents and is a leading reason for seeking medical advice. [5]

Table no. 1: Age distribution among adoloscents attending gyne opd (N=200)

Age	Number	Percentage
11-14	27	13.5%
15-19	173	86.5%

Table 1 shows age distribution of the adolescent girls attending our OPD. In our study 86.5% patients were from late adolescent age group i.e. 15-19 yrs.

Table no. 2: Marital status amongst adolescent girls (N=200).

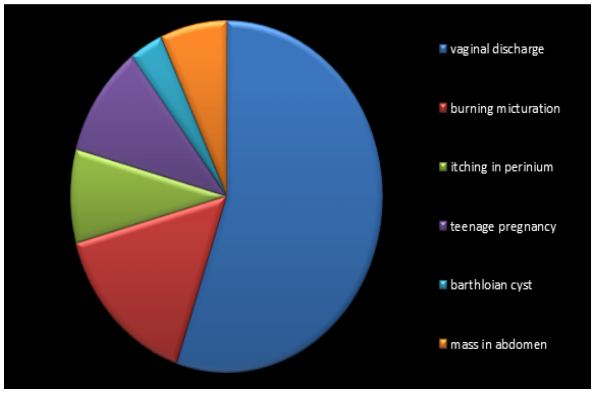
Marital status	Number	Percentage
Unmarried	158	79
Married	42	21

Although majority of adolescent girls in our study were unmarried (79%), 21% were married, it shows teenage marriages are still prevalent in our country, especially in rural area (Table 2)

Table no. 3: Gynaecological problems amongst adolescent girls (n=200).

COMPLAINTS	Number	Percentage
Menstrual Disorders	138	69
Vaginal Discharge	32	16
Burning Micturition	9	4.5
Teenage pregnancy	6	3
Itching in perineum	5	2.5
Mass in Abdomen	4	2
Bartholian Cyst	2	1
Septic Abortion	2	1
Sexual assaualt	2	1

As Majority of girls had complaints related to menstrual disorders i.e. (69%). This was followed by leucorrhoea i.e.(16%), burning micturination (3.5%) , teenage pregnancy(3%), pruritis (2.5%) , follicular cysts & ovarian mass (2%), bartholian cyst , septic abortion (1%) and sexual assault (1%)

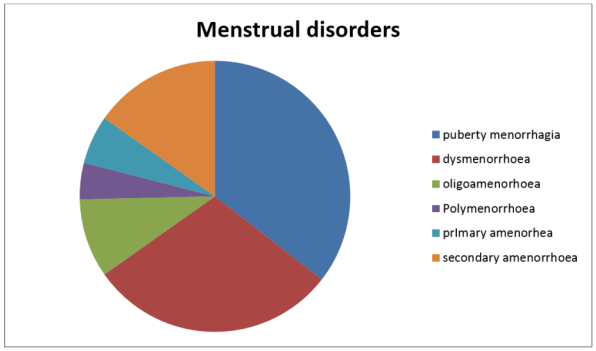


Graph no. 1 : Presentation of various gynaecological problems in adolescent

Table no. 4 Types of Menstrual Disorders (N=138)

Menstrual Disorders	Cases No	Percentage
Puberty Menorrhagia	49	35.50
Dysmenorrhoea	41	29.71
Secondary Amenorrhoea	21	15.21
Oligomenorhoea	13	9.42
Primary Amenorrhoea	8	5.79
Polymenorrhea	6	4.34

In the present study, 49 out of 138 (35.50%) adolescent girls with menstrual disorders had puberty menorrhagia, 41 out of 138 (29.70%) adolescent girls had dysmenorrhea, 8 out of 138 (5.79%) adolescent girls had primary amenorrhoea, 21 out of 138 (15.21%) adolescent girls had secondary amenorrhoea, 13 out of 138 (9.42%) adolescent girls had oligomenorrhoea and 6 out of 138 (4.34%) adolescent girls had complaints of polymenorrhoea,. 7 girls required hospitalization; all of them needed blood transfusion due to significant severe anemia resulting from puberty menorrhagia.



Graph no.2: Distribution of cases according to various menstrual disorders

Table No.5 : Showing causes of menorrhagia in adolescent (N = 49)

Causes of menorrhagia	Number	Percentage
DUB	45	91.83
Thyroid dysfunction	3	6.1
Coagulation Abnormalities	1	2.04

On Investigating the causes of menorrhagia, in 45 out of 49 girls (91.83%) suffered from Dysfunctional Uterine Bleeding. In 3 out of 49 adolescent girls (6.1%), hypothyroidism was seen. One of them suffered from any bleeding disorder(2.04%). Most common cause of Menorrhagia found DUB. DUB is not only restricted to the adult population, but is more common in adolescents. It may take 2 to 5 years for the complete maturation of hypothalamic pituitary ovarian axis.

Table no. 6: Causes of primary amenorrhoea (n=8).

CAUSE	Number	Percentage
Imperforate Hymen	4	50
Mullerian Agenesis	2	25
Turners Syndrome	1	12.5
Constitutional Delay	1	12.5

It was worth noting causes of primary amenorrhoea. Out of 8 girls, 4 were having imperforate hymen, surgery was performed by giving cruciate incision. 2 case of mullerian agenesis,vaginoplasty performed and 1 case was turner syndrome and in remaining 1 cases no abnormality was found,followup was done ,menarche attained later on , so that taken as cases of constitutional delay.

Table No.7 : Causes of secondary amenorrhoea (N=21)

Causes of secondary amenorrhoea	Number	Percentage
PCOD	12	57.14
Teenage Pregnancy	6	28.57
Hypothyroidism	3	14.28

Secondary amenorrhoea accounted for 21/200 (10.5%) of cases in our study & causes include **Polycystic ovarian syndrome** in 12 /21 (57.14%) girls followed by teenage pregnancy in 6/21 (28.57%) patients and **hypothyroidism** was responsible in 3 /21(14.28%) patients.

DISSCUSSION:

Adolescent health education and group discussion is needed to create awareness regarding adolscent gynecological problems. It should be conducted regularly in schools and colleges . Adolescent girls with menorrhagia need to be evaluated thoroughly earlier rather than later so that effective management can be started and severe anemia with its consequences can be avoided. The majority of girls presented with menorrhagia had anovulatory cycles and responded well to the conservative management such as anti-fibrinolytic agents, oral progesterone or the oral contraceptive pill. Looking at the problems faced by adolescent girls, disturbances of menstruation are the most common complaints bringing them to gynaecological clinic (69%). Menstrual disorders were commonest problem in studies conducted by Sreelatha S (62.5%) [6] , Prakriti Goswami et al (60%) [7], Ashok Kumar et al,(50.7%) and Gowswami Sebanti et al (58.06%).[8] however, Ramaraju et al and Archana kumari have found in their study even higher number of girls (74%) complaining of menstrual abnormalities. Dysmenorrhoea was a fairly common problem among adolescent girls (20.5%), these girls were counselled in detail and were prescribed antispasmodics. Ramaraju et al have found that 19% adolescents presented with dysmenorrhoea whereas Goswami S et al found 7% adolescents presenting with dysmenorrhoea .

In the present study,8/200 (4%) girls presented with primary amenorrhoea. 4 cases were having imperforate hymen and were treated by surgery. 2 girls were found to have mullerian agenesis, whereas in 1 girl turner syndrome was there and in remaining one no abnormality was found so on followup that was taken as cases of delayed puberty and were counselled accordingly. Incidence of primary amenorrhoea was found to be 11.1% (8/72) by Goswami S et al, 9.4% (7/74) in the study done by Ramaraju et al .

Secondary amenorrhoea accounted for 21/200 (10.5%) of cases in our study & causes include Polycystic ovarian syndrome in 12 girls followed by teenage pregnancy in 6 patients and hypothyroidism was responsible in 3 patients. In this study, most of the patients suffering from secondary amenorrhea and oligomenorrhea were ultimately

diagnosed to be cases of Polycystic Ovarian Disease (PCOD) and hypothyroidism based on clinical criteria of menstrual problems, features of hyperandrogenism and sonography finding. Cycle regularity was restored with combined oral contraceptive pills. cyproterone acetate was added in presence of hirsutism .

In our study , 32 (16%) out of 200 patients reported with complaint of discharge per vagina. Leucorrhea can be physiological or pathological. Increased level of endogenous estrogen lead to marked overgrowth of the endocervical epithelium, which may encroach outward and produce ectocervical erosion leading to excess discharge .[9] It was found that majority of them i.e. 27/32 (84.37%) were having normal physiological discharge for which they need to be counselled and educated only. However, 5/32(15.6%) were having infection and needed treatment along with proper guidance regarding menstrual hygiene. Ramaraju et al found vaginal discharge was second commonest complaints in 17% cases. All of them had physiological leucorrhea which responded to counseling. Goswami S et al, found 19.35% girls presenting with leucorrhea In our study 9/200 (4.5%) patients were diagnosed with urinary tract infection and . They were treated with antibiotics and were educated regarding proper fluid intake ,menstrual hygiene . Goswami P et al have also reported similar results, urinary tract infection in 4% and pelvic inflammatory disease in 8% of girls Teenage pregnancy is a common problem in India due to early marriage in rural area and was seen in 3.0% cases in our study. Similar result was found by Goswami S et al, 4.03% (5/124) and Biswas and Rout 3.64% (4/110) . Teenage pregnancies, being prone to various complications, need to be given special care and should be counselled accordingly. Teenage girls should be educated regarding contraception so that pregnancy could be planned at proper age.

Mass per abdomen was found in 4 out of 200 cases . 2 /4 (50%) girls came with ultrasound report showing a small ovarian cyst (follicular cyst) as incidental finding and needed detailed counseling to dispel their apprehension. 1 /4 (25%) included ovarian torsion , needed surgery due to torsion and remaining 1 (25%) case was presented with dermoid cyst. In the study conducted by Nandita biswas., et al. 60% had ovarian cysts [10] . Goswami P et al, found 5.33% adolescent girls had physiological cyst of ovary. Functional cysts are the most frequently observed cystic masses of the ovary accounting for 20-50% ovarian tumours during childhood and adolescence .

Sexual assault was seen in 2 out of 200 (1%) of adolescent girls in our study. Sexual assault may lead to lower self-esteem, depression, unwanted pregnancies and criminal abortions amongst adolescents.2 out of 200 came in gyne opd with septic abortion and detailed history was taken,confidentiality was taken and these cases were managed conservativey by i.v.fluid,i.v. antibiotic

CONCLUSION :

Adolescents present with a myriad of gynaecological problems. The gynaecological problems of adolescence can pose difficulties in diagnosis as well as in management ,not just from the physical nature of the problems, but also from the associated emotional and psychological factors. Teenage problems need to be dealt sensitiviely ,empathicly, confidentiality and with friendliness attitude. Counselling is an integral component of treatment strategies. Since today's youth is tomorrow's worker, entrepreneur, parent, active citizen and indeed leader so we need to give special emphasis on menstrual hygiene ,safe sex practices,STIs specially HIV and emergency contraception should be included in sex education. 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 gynecologists treating them. Adolescent gynaecology is not a new subject but it needs increasing awareness and further attention to protect and promote the health of teenagers. Since the problems are specific to this group, setting up of separate “Adolescent Gynaecological Clinics” is desirable so that aim to provide a private and friendly environment can be achieved .

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