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Original Research Article

A Retrospective Socio-Demographic Assessment of the Aspects of Adolescent Girls Having Menstrual Problems as Well as Type of Menstrual Problems

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Abstract

Aim: To evaluate the socio-demographic aspects of adolescent girls having menstrual problems as well as type of menstrual problems and its management.

Material & Methods: This retrospective study was carried out at Department of Obstetrics and Gynecology, Nalanda Medical College & Hospital, Patna, Bihar, India, over a period of one year.

Results: We have collected data of 100 adolescent girls, who had presented with menstrual problems at our tertiary care hospital during the study period. Menstrual problems were in the form of dysmenorrhea in 67%, menstrual irregularity in 23% and amenorrhea in 10%. Dysmenorrhea was more prevalent amongst all the menstrual problems.

Conclusion: Majority of the adolescent girls in our study were anemic. Hence, prevention and management of anemia along with health education regarding normal physiology, various menstrual problems and importance of nutrition is necessary. In India attempts and success to develop adolescent friendly health services in public and private systems have met with partial success. Hence, counselling and management of menstrual problems in adolescents needs to be provided in existing health and medical care services.

Keywords: Adolescents, Gynecological problems

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 adolescent's body, and excessive menstrual loss, all aggravate and exacerbate 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. Menarche is considered as the central event of female puberty. The psychosocial and emotional problems associated with menarche are of considerable magnitude. The menstrual cycle involves the coordination of many events by the hypothalamic–pituitary–ovarian axis and is readily influenced by psychological and pathological changes occurring during one's lifespan. The age of menarche is determined by general health, genetic, socioeconomic, and nutritional factors [2]. The mean age of menarche is between 12 and 13 years [3–5]. Menstrual bleeding lasts 2–7 days in 80–90 % of adolescent girls. Most cycles still range from 21 to 45 days which, even in the first year after menarche, is normal. Changing 3–6 pads per day without soiling from oversaturated pads suggest a normal flow [5].

One of the major physiological changes that take place in adolescent girls is the onset of menarche, which is often associated with problems of irregular menstruation, excessive bleeding and dysmenorrhea. [6]

In this study, we have made an attempt to evaluate the socio-demographic aspects of adolescent girls having menstrual problems as well as type of menstrual problems and its management.

Material & Methods:

This retrospective study was carried out at Department of Obstetrics and Gynecology, Nalanda Medical College & Hospital, Patna, Bihar, India, over a period of one year and data was collected from the OPD books, case papers and also from records of the hospital.

Inclusion criteria:

- All the adolescent girls aged 10-19 years who attended OPD and/or were admitted under the gynecology department for menstrual problems.

Exclusion criteria:

- Adolescent girls having other gynecological problems were excluded.

Methodology

The study population included emergency as well as registered ones. Patients' Socio-demographic details like age, education, residence, socio-economic class, presenting complaints, type of menstrual problems and details of management were collected. Data was analyzed by appropriate statistical tools.

Results:

We have collected data of 100 adolescent girls, who had presented with menstrual problems at our tertiary care hospital during the study period.

As shown in Table 1 the maximum percentage of adolescent girls, 65% having menstrual problems belonged to the late adolescent age group of 17-19 years. Majority of adolescent girls 93% having menstrual problems were from urban background. The proportion of adolescent menstrual problems was highest, 52% among middle socio-economic class and lowest, 8% among high socio-economic classes. Majority of them 87% were unmarried.

As shown in Table 2, menstrual problems were in the form of dysmenorrhea in 67%, menstrual irregularity in 23% and amenorrhea in 10%. Dysmenorrhea was more prevalent amongst all the menstrual problems.

As shown in Table 3, out of 67 adolescent girls who had dysmenorrhea, primary dysmenorrhea and secondary

dysmenorrhea were present in 64.1% and 35.7%) girls respectively.

As shown in Table 4, out of 23 adolescent girls having menstrual irregularities, heavy menstrual bleeding was present in 52.1%, infrequent menstrual bleeding was present in 21.7%, light menstrual bleeding was present in 17.3% and frequent menstrual bleeding was present in 8.6% adolescent girls.

As shown in Table 5, out of 10 adolescent girls, who had amenorrhea, primary amenorrhea was present in 30% adolescent girls. Out of these, 30% girls had imperforate hymen. 10% had high vaginal septum and 10% had cervical agenesis. Secondary amenorrhea was present in 50% adolescent girls. Out of them, polycystic ovarian syndrome (PCOS) was present in 40% girls, and10% girl was diagnosed with hypothyroidism.

As shown in Table 6, out of 100 adolescent girls, 66% were anemic. Mild, moderate and severe anemia were present in 65.1%, 25.7% and 9%) respectively.

Table 1: Socio-demographic details (N=100)

Socio-demographic details Age (years)	Numbers
Early adolescent (10-13)	6
Mid adolescent (14-16)	29
Late adolescent (17-19)	65
Residential area	
Urban	93
Rural	7
Socio-economic class	
Low	40
Middle	52
High	8
Marital status	
Unmarried	87
Married	13

Table 2: Types of menstrual problems (N=100)

Menstrual Problems	Numbers
Dysmenorrhea	67
Menstrual irregularity	23
Amenorrhea	10
Total	100

Table 3: Types of dysmenorrhea in adolescent girls (N=67)

Dysmenorrhea			%
Primary	Ovarian cyst	38	56.72
	Polycystic Ovarian Syndrome (PCOS)	5	7.463
Secondary	PID	22	32.84
	Congenital anomalies of reproductive tract	2	2.985

Total		67	100

Table 4: Types of menstrual irregularity in adolescent girls (N=23)

Menstrual Irregularity	Numbers	Percentage (%)
Heavy menstrual bleeding (HMB)	12	52.17
Infrequent menstrual bleeding	5	21.74
Light menstrual bleeding	4	17.39
Frequent menstrual bleeding	2	8.696
Total	23	100

Table 5: Causes of amenorrhea in adolescent girls (N=10)

Amenorrhea	Cause	Numbers	%
Primary	Imperforate hymen	3	30
	Mayer Rokitansky Kuster Hauser syndrome(MRKH)	0	0
Secondary	Cervical agenesis	1	10
	High vaginal septum	1	10
	PCOS	4	40
	Stress	0	0
	Hypothyroidism	1	10
Total		10	100

Table 6: Severity of anemia and socioeconomic status in adolescent girls (N=66)

Severity of Anemia	Socio-economic status			
	High Numbers	Middle Numbers	Low Numbers	Total Numbers
Mild	8 (12.1%)	18 (27.2%)	26 (39.3%)	43 (65.1%)
Moderate	1(1.5%)	7 (10.6%)	9 (13.6%)	17 (25.7%)
Severe	1(1.5%)	1 (1.5%)	4 (6.0%)	6 (9.0%)
Total	10 (15.1%)	26 (39.3%)	39 (59.0%)	66 (100%)

Discussion:

The present study shows adolescent girls having gynecological problems attending outpatient department were almost similar to study conducted by Chanda Karki et al (12.39%). [7] Prakrithi et al have reported the incidence as 3.3%. [8] Rajal et al have reported incidence of gynecological problems in adolescent girls as 2.3%. [9]

A Shanti Sri et al. analyzed in her study and found that 12.5 % girls had Hb level\5 g%, 29.16 % girls had Hb level between 5 and 7 g%, 27.8 % girls had Hb level of 7–10 g%, and 31.25 % girls had Hblevel [10 g [10].

In another study by Manaswini Khuntia et al., 92.91 % adolescent girls were treated with hormones. Non-hormonal management was done in 7.1 % girls, and 2.6 % girls required surgical intervention [11]. Nita K Patel et al. in their comparative study showed that the use of norethisterone for the management of puberty menorrhagia was more effective and better tolerated compared with oral contraceptive pills [12].

Progesterone is effective and can be used in combination with estrogen.

Progesterone can be used cyclically in two different treatment protocols: as a short course during the luteal phase, and a relatively longer course is required—lasting 21 days from the fifth day of cycle until spontaneous regular ovulation occurs. Heavy bleeding can be treated with (1) oral medroxy progesterone 10 mg TDS/day for 14 days. (2) medroxy progesterone acetate 150 mg intramuscularly every 12 weeks. (3) Progesterone can also be used for medical curettage, in the form of Norethisterone acetate 20–30 g daily for 3 days to arrest hemorrhage. It may then be continued at a lower dose for up to 21 days. Withdrawal bleeding will occur on stoppage of the treatment that lasts for 4–5 days. (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 25 mg I V every 4 h for up to 24 h is indicated. Then oral estrogen can be substituted. A progesterone is also usually added [13]. (6) A systematic review showed that Levonorgestrel IUD significantly reduced menstrual blood by 74–97 %. Lara E Williams et al. stated that levonorgestrel intrauterine system can be safely used in cases where first line treatments have failed or when there is contraindication to the use of combined pills [14].

Goswami P et al[8]have reported secondary amenorrhea in 8(72.7%) adolescent girls, out of these 6(75%) adolescent girls had PCOS, 1(12.5%) girl had hypothyroidism and 1(12.5%) had TB abdomen. Adolescent girls, who had PCOS, were counselled regarding lifestyle modification and weight reduction. [15]

Conclusion:

Majority of the adolescent girls in our study were anemic. Hence, prevention and management of anemia along with health education regarding normal physiology, various menstrual problems and importance of nutrition is necessary. In India attempts and success to develop adolescent friendly health services in public and private systems have met with partial success. Hence, counselling and management of menstrual problems in adolescents needs to be provided in existing health and medical care services.

References:

1. Hanson M, Gluckman P. Evolution: development and timing of puberty. Trends Endocrinol Metab. 2006;17(1):7–12.
2. Flug D, Largo RH, Proder TO. Menstrual patterns in adolescent swiss girls: a longitudinal study. Ann Hum Biol. 1984;11: 495–508.
3. World Health Organization Task force on adolescent reproductive health. World Health Organization multicenter study on menstrual and ovulatary patterns in adolescent girls. A multicenter cross-sectional study of menarche. J Adolesc Health Care. 1986; 7:229–35.
4. Herman-Giddens ME, Slora EJ, Wasserman RC, et al. Secondary sexual characteristics and menses in young girls seen in office practice: a study from the paediatric research in office settings network. Paediatrics. 1997; 99:505–12.
5. Adams Hillard PJ. Menstruation in young girls. A clinical perspective. Obstet Gtnecol. 2002; 99:655–62.
6. Agarwal AK, Agarwal A. A study of dysmenorhea during mestruation in adolescent girls. Indian J Community Med. 2010;35(1):159-60.
7. Karki C, Shrestha NS. Gynecological disorders of adolescent girls at Kathmandu Medical College Teaching Hospital. NJOG. 2008;3(2):44-7.
8. Goswami P, Ahirwar G. Adolescent gynecological problems:a prospective

study. J Evolut Med Dental Sci. 2015;4(102):16709-12.
9. Thaker RV, Madiya AB, Chaudhari HD, Maru JD, Baranda SB. Health profile of adolescent girls visiting obstetrics and gynecology department of tertiary care hospital.
10. Shanti SA, Jehan A. Puberty menorrhagia: evaluation and management. J Evol Med Dent Sci. 2015;4(30):5198–203.
11. Khuntia M, Behera P. Etiology and management of puberty menorrhagia in adolescent girls. Int J Recent Trends Sci Technol. 2015;14(2):406–9.
12. Patel NK, Patel S, Damor R, et al. Comparison of the efficacy and safety of norethisteronevs combined oral contraceptive pills for the management of puberty menorrhagia. Int J Basic Clin Pharmacol. 2012;1(3):191–5.
13. Harvey, D. F. Physician Burnout Quality of Life/ Wellness Resource Pilot Program. Journal of Medical Research and Health Sciences, 2020:3(2), 886–912.
14. Szymanski LM, Kimberly B. Abnormal uterine bleeding. The John Hopkins manual of gynecology and obstetrics. 3rd ed. Philadelphia: Lippincote Williams and Wilkins; 2002: 417–28.
15. Williams LE, Creighton SM. Mentrual disorders in adolescents: review of current practice. Harm Res Paediatr. 2012;9(5): 493–504.