

GYNECOLOGICAL PROBLEMS IN ADOLESCENTS

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SUMMARY

Among 400 adolescent girls who present with gynecological complaints menstrual disorders were the commonest (54.25%) followed by leucorrhoea (26.5%), genital infections (6.75%) and genital tract injury (1.5%). Of the menstrual disorders; oligomenorrhoea was most frequently encountered (49.8%) with menorrhagia (25.8%), primary amenorrhoea (11.1%) and secondary amenorrhoea (7.8%) following. The percentages of out of wedlock pregnancy (5.75%) and ovarian tumours (1.25%) were significant. 60% of the ovarian tumours were malignant especially of the germ cell histology like dysgerminoma. The mean age at menarche was 14.2 years, the incidence of spasmodic dysmenorrhoea was 11.25%. Majority of the patients required just reassurance, advice on diet, rest, exercise and genital hygiene or only minimal intervention in the form of analgesics for dysmenorrhoea, hematinics and hormones for menorrhagia and antibiotics for infections. Only patients with primary amenorrhoea and pelvic tumors required detailed work up and laparoscopy or laparotomy. The study revealed a need for more population based studies on adolescent gynecological problem in order to assess their true magnitude and formulate appropriate counselling measures.

INTRODUCTION

The adolescence which is the most vital period of growth reveals in addition to nutritional and health problems gynecological disorders, congenital anomalies, cytogenetic abnormalities and endocrine gland dysfunctions. All these may have a devastating effect on their future fertility and childbearing. In

India very little attention is being given to the reproductive health of adolescent girls who comprise 22% of the female population. The reasons for this neglect are ignorance, indifference and reluctance on the part of the patients and parents to consult a doctor and lack of female doctors especially in rural areas where nurses and paramedical workers are unable to deal with gynecological problems.

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MATERIALS AND METHODS

The clinical study on gynecological problems in adolescents included 400 girls aged between 12 and 19 years who attended the Gynecology clinics of the Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry during the one year period, July 1989 to June 1990. History taking, general and gynecological examination, measurement of height, weight and hemoglobin were done. Patients with menorrhagia were evaluated for hypothyroidism and bleeding disorders. Those with primary or secondary amenorrhea were investigated for tuberculosis, thyroid disorders, diabetes and cytogenetic abnormalities and selected for laparoscopy or laparotomy. All patients with ovarian tumours underwent laparotomy after necessary investigations.

OBSERVATIONS

(1) 98% of the girls were from poor socio-economic group and 78% had an anthropometric index below normal.

(2) The mean age at menarche was 14.2% years. Table I shows a comparison of the age

at menarche of Indian girls from various cities.

(3) Menstrual disorders were the commonest of complaints. Table II shows the common disorders encountered in the study.

(4) Oligomenorrhea was the most frequent menstrual pattern. Table III list the menstrual patterns seen in this study.

(5) Turner mosaicism was the commonest cause of primary amenorrhea. Table IV shows the causes of primary amenorrhea;

(6) Only 15.5% of patients with menstrual problems and leucorrhoea had an organic cause for their disorder. This is shown in Table V.

(7) The incidence of pelvic neoplasm was 2% of which 62.5% were of ovarian origin. Of the ovarian tumours 60% were malignant and all of them were dysgerminomas. Table VI and VII show the age, presenting symptoms and histology of the pelvic tumours encountered in the study.

DISCUSSION

The higher age at menarche seen in this study may be due to the poor socio-economic and nutritional status of the girls, an observa-

Table I

Age at menarche of Indian Girls

City	Author / Year	Age at Menarche - Years
1 Madras	Madavan / 1963	Rural 14.16 Urban 12.76
2 Poona	Ghosh / 1973	13.20 Low income group 14.4
3 Goa	Rajaram / 1973	13.20 High income group 13.9
4 Haryana	Bhatnagar / 1974	13.24
5 Calcutta	Mitra & Sen / 1976	13.50
6 Delhi	Grover / 1989	12.00
7 Present Study (Pondicherry)	1990	14.20

Table II

Common Gynaecological disorders in adolescents

Disorders	Number	Percentage
1 Menstrual disorders (bleeding or cycle disorders)	217	54.25
3 Leucorrhoea	106	26.50
3 Spasmodic dysmenorrhoea	45	11.25
4 Genital infections	27	6.25
5 Out-of-wedlock pregnancy	23	5.75
6 Genital tract injury	6	1.5
7 Ovarian tumours	5	1.25
i. benign	2	40
ii. malignant	3	60

Total No. of patients examined : 400

Some patients had more than one complaint

Table III

Menstrual disorders in adolescents

Disorders	Number	%
Oligomenorrhoea	108	49.8
Menorrhagia	56	25.8
Primary amenorrhoea	24	11.1
Secondary amenorrhoea	17	7.8
Metropathia menorrhagia	12	5.5
Total	217	100

tion noted by Southam and Ricbart (1966) too. Studies from Indian cities however show average near 13 as in Europe and North America (Table I). Of 108 patients with oligomenorrhoea only in 7 patients could a cause for their disorder be found (Table V). These patients were reassured about the good chances of return

Table IV

Causes of Primary amenorrhoea

Cause	Number
Turner Mosaicism	12
Mullerian agenesis	7
Turner's Syndrome	2
Testicular feminisation	1
Vaginal agenesis with hematometra	1
Imperforate hymen	1
Total	24

to normalcy. Of 56 patients with menorrhagia, 42 were managed conservatively with hematinics and dietary advice because their bleeding was not very severe. Cyclical norethisterone therapy was instituted for 3 months in 13

Table V

Classification of cases with menstrual disorders or white discharge per vaginum as organic or functional

Disorders	Number	Patients with normal findings		Patients with an organic cause	
		No.	%	No.	%
1 Oligomenorrhea	108	109	93.5	7	6.5 3 out of wedlock pregnancies 2 Turner Mosaicism 2 Severe anemia
2 Menorrhagia	56	55	98.2	1	1.8 Hypothyroidism
3 Delayed menarche	44	20	45.5	24	54.5 (for details refer table IV)
4 Secondary Amenorrhea	17	10	58.8	7	41.2 6 out-of-wedlock pregnancy 1 Turner Mosaicism
5 Metropathia hemorrhagica	12	12	100.0	0	
6 Leucorrhoea	106	92	86.8	14	13.2 12 Trichomonas Vaginitis 1 Bacterial Vaginitis 1 Candidial Vaginitis

patients. Though the menorrhagia recurred after discontinuation of hormones, the patients, anxiety about their disorder remarkably decreased. Only one patient was found to be hypothyroid. No patient had bleeding disorder and none required blood transfusion. Therapeutic curettage was done in 2 and endometrial biopsy in 2. They were married and were being investigated for infertility. The histopathology was proliferative phase in 3 and cystoglandular hyperplasia in 1. This is consistent with the fact that anovulation due to the immaturity of

the hypothalamopituitary ovarian axis is the most common cause of adolescent menstrual disorders, (Altchek 1971). A well defined cause for secondary amenorrhea was found in one of 17 patients with that disorder and pregnancy was the commonest cause (Table V). Of 44 patients with delayed menarche only 24 had either a chromosomal anomaly or a genital tract anomaly or both. Turner Mosaicism was the commonest cause of primary amenorrhea (Table IV) and 2 patients who had Y chromosome in their Karyotype underwent gonadectomy

Table VI

Ovarian tumours in adolescents

Age	Presenting Symptom	Histopathology	Remarks
Malignant			
12	Loss of appetite 1 Yr. Pain in abdomen 1 week	Dysgerminoma with endodermal sinus elements	Stage III
16	Pain in abdomen 2 days Nausea & Vomiting	Dysgerminoma	Stage III
18	Not attained menarche	Dysgerminoma with gonadoblastoma	Stage III XY KARYO TYPE (TESTICULAR FEMINISATION SYNDROME)
Benign			
17	Pain in abdomen 2 months	Dermoid Cyst	Twisted
18	Pain & mass in abdomen 2 months	Serous Cytadenoma	Twisted

Table VII

Non ovarian pelvic tumours

Age	Presenting Symptoms	Histopathology
13	Difficulty in passing urine	Broad ligament hydatid cyst
18	Not attained menarche. Pain in abdomen	Non Hogkins Lymphoma
19	Pain in abdomen 1 month	Neurofibrosarcoma

because of the high risk of malignancy. After ruling out serious cardio vascular and renal abnormalities, laparoscopy, laparotomy and gonadectomy were recommended as the situation required. The patient's sterility was explained and they were informed about procedures like vaginoplasty and hormonal therapy for breast development.

Spasmodic dysmenorrhea severe enough to cause school absenteeism was present in only 2 of 45 patients. Aspirin or Ibuprofen achieved good pain relief.

Of 106 patients with white discharge per vaginum 92 were diagnosed to have physiological leucorrhoea and reassured and advised about genital hygiene. Trichomonal vaginitis

and nonspecific vulvitis were the commonest infections and were treated appropriately with antibiotics.

A significant percentage (70%) i.e., 28 patients were having premarital sex and 84% i.e., 23 of them presented with out-of-wedlock pregnancies. All of them were from low socio-economic group, either illiterate or school drop-outs and unaware of contraception. The most common presenting symptom that led to the suspicion of pregnancy was amenorrhoea. The other presenting symptoms were pain and mass in abdomen, irregular periods and white discharge per vaginum. Four patients came asking for medical termination of pregnancy. Even after counselling only 4 out of the 23 were willing to marry their partner and continue their pregnancy.

Fall on a pointed object was the most common cause of genital injury which was limited to a vulval laceration in most cases. Of 8 patients with pelvic tumours, 5 had ovarian masses, of which 2 were benign cysts one each of the teratoma and serous cystadenoma histology. All three malignant tumours were dysgerminomas and were in stage III at the time of laparotomy. Two patients had a mixed histology with endodermal sinus elements in one and gonadoblastoma in the other (Table VI & VII).

RECOMMENDATIONS

(1) There is a pressing need to have more population based studies on adolescent gynaecological problems rather than hospital based studies in order to appreciate their true magnitude. Regular screening programs should be instituted in target areas like schools and colleges where a large number of adolescents concentrate.

(2) Adolescents should have easy access to counselling by specialists and should be explained about the various physiological phenomena that occur during this period in order to avoid unnecessary anxiety and fear.

(3) Women gynaecologists should visit rural areas at regular intervals and offer advice and referrals as required since girls in rural areas have the least access to specialist health care facilities.

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