

## LAPAROSCOPY - A DIAGNOSTIC AID IN PRIMARY AMENORRHOEA

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### SUMMARY

In a study of 500 cases of primary amenorrhoea laparoscopic examination was performed-mullerian tract abnormality was present in 387 cases, gonadal dysgenesis and testicular feminising syndrome in 7 cases each and in 99 cases cause remain undetermined. Rudimentary horns of uterus were present in 401 cases, hypoplastic uterus in 31 cases and in rest 68 cases uterus was normal. Streak gonads were present in 7 cases and ovaries were not traceable in 7 cases and normal ovaries were present in 486 cases.

### INTRODUCTION

Puberty marks the beginning of adolescence and menarche - the onset of menstruation is merely one manifestation of puberty. Susruta Samhita mentions menarche at the age of 12 years in India. Mitra & Sen (1976) observed that age of menarche varied between 9 & 17 years with a mean of 13.57 years.

The normal menarche requires a nice integration of hypothalamus, pituitary, ovary, uterus and a patent effluent canal for menstrual bleeding. Aberrations in any of these may result in failure of sexual maturation or absence of menarche. In adolescent gynaecological

clinic primary amenorrhoea is the most frequent complaint. Laparoscopy is helpful in detecting the cause along with endocrinological and chromosomal tests. Present study includes 500 cases of primary amenorrhoea in which diagnostic laparoscopy was done to establish the diagnosis.

### MATERIAL AND METHODS

For primary amenorrhoea girls who had reached the age of 16 years or above without menstruation were selected. Patients below 16 years were included if they showed obvious endocrine abnormalities. Thorough general examination and systemic examination was done. Buccal Smear was examination for Barr body, endocrine assays were done whenever

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Accepted for Publication on 28.01.1993.

feasible. Laparoscopic examination was done in all cases under local anaesthesia.

### OBSERVATIONS

From the laparoscopic study it was noted that mullerian tract abnormality was present in 387 cases, gonadal dysgenesis in 7 cases and testicular feminising syndrome in 7 cases. Cause could not be ascertained in 99 cases.

In 401 cases Uterus was rudimentary, hypoplastic in 31 cases and in the remaining 68 cases, uterus was found to be normal.

Normal ovaries were present in 486 cases streak gonads were present in 7 cases and in other 7 cases ovaries could not be found out.

lege Hospital, Bhopal 77.4% were due to mullerian abnormality which stood out as the commonest disorder. Gonadal dysgenesis and testicular feminising syndrome in 1.4% each and in 19.8% the cause remained undetermined.

Vaidya et al (1972) found faulty mullerian development in 22.01% of cases as the cause of primary amenorrhoea.

Gun et al (1878) conducted a study in 207 patients of primary amenorrhoea and gonadal dysgenesis was the most common defect i.e. 33.18% followed by mullerian abnormality in 25.34%.

Table I

#### Aetiological factors in Primary Amenorrhoea

S. No.	Causes	No. of cases	Percentage
1.	Mullerian tract abnormality	387	77.4
2.	Gonadal Dysgenesis	7	1.4
3.	Testicular feminising syndrome	7	1.4
4.	Undetermined causes	99	19.8
Total		500	100.0

### DISCUSSION

In this study of 500 cases of primary amenorrhoea who had attended Medical Col-

Table II

#### Laparoscopic appearance of uterus

S. No.	Appearance of Uterus	No. of cases	Percentage
1.	Rudimentary	401	80.2
2.	Hypoplastic	31	6.2
3.	Normal	68	13.6
		500	100.0

**Table III**  
**Laparoscopic Appearance of Ovaries**

S. No.	Appearance of Ovaries	No. of cases	Percentage
1.	Normal	486	97.2
2.	Streak	7	1.4
3.	Absent (apparently)	7	1.4
Total		500	100.0

In a study conducted by Chandrawati et al (1978) mullerian abnormality was present in 75% of the cases. Mullerian duct atresia was the commonest i.e. in 62.5% and gonadal dysgenesis in 9.4% of the patients.

N. Biswas & Dey 1989 studied 173 cases of primary amenorrhoea 76.30% due to mullerian abnormality and 8.670% cases were found as abnormal ovarian function inspite of normal mullerian structure. Amongst uterine abnormality aplasia was common in 32.947%. Hypoplasia of uterus was noted in 9.826% and found in 25.433% Absence of Uterus, gonads and tubes were noted in 8.092% in ovarian abnormality streak ovary was common i.e.

13.872% Unilateral and bilateral agensis were found in 10.982% and 8.09% respectively.

Secondary sex characters were not developed in 7 cases of apparently absent gonads.

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Table II  
Laparoscopic appearance of uterus

S. No.	Appearance of Uterus	No. of cases	Percentage
1.	Redundant	100	50.0
2.	Hypoplastic	31	15.5
3.	Absent	39	19.5
Total		170	100.0