

LABIAL ADHESION

By

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SUMMARY

Labial adhesion in prepubertal females is associated with tremendous parental anxiety due to wrong diagnosis of müllerian agenesis. Such a condition, if identified, is a simple one which can be very easily treated. Clinical data of 60 cases of labial adhesions is presented and discussed.

Introduction

Labial adhesions are known to occur in the prepubertal females due to oestrogen deprivation. In India, statistics on labial adhesion are difficult to come by as there are no separate division of pediatric and adolescent gynaecology in most teaching hospitals in India. No study of labial adhesions in prepubertal females has been reported from India.

Labial adhesions in prepubertal females is not as uncommon as it was thought to be. However, the diagnosis is often missed because of many reasons the important one being the lack of awareness of this entity among general practitioner, pediatricians and even few gynaecologist.

It further assumes importance because it is often associated with tremendous parental anxiety and emotional trauma to the child due to wrong diagnosis of müllerian agenesis. The purpose of this communication is to record our experience on this aspect of pediatric gynaecology,

as labial adhesions in prepubertal females has not been adequately stressed.

Material, Methods and Observation

The review includes records of 60 such children referred to the author for consultation during the last 12 years (Jan. 1975-March, 1987). Clinical data is reviewed for age, reason of referral and mode of presentation, extent of involvement of labia minora whether partial or complete, presence of vulvovaginitis or vulval soreness and type and success of treatment. Patients were also examined for any systemic abnormality, urine and vaginal swab culture.

All patients were prepubertal i.e. less than 12 years of age (Table I). The youngest was 17 months old and oldest was 12 years of age. In 2 cases (12 yrs, 11.2 yrs respectively) secondary sexual development had started. The peak age incidence was between 2-6 years, with the mean of 4.79 years (4.79 ± 2.42 yrs, Mean \pm SD). Fifty two patients belonged to middle or low socioeconomic class and only 8 belonged to higher income group (Rs. 2500/month), which is consistent with our patient population.

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TABLE I
Age Distribution of 60 Cases of Labial Adhesion

Age (years)	Total	Percentage
0-2	2	3.33
2-4	27	45.00
4-6	16	26.66
6-8	9	15.00
8-10	3	5.00
10-12	3	5.00
Total	60	100.00

Mean age \pm SD = 4.79 \pm 2.42.

No child was brought directly; all patients had been seen earlier by trained doctors (General practitioner-39, Pediatrician-14, Gynaecologist-7). It is pertinent to note that 78.33% were referred with possibility of vaginal agenesis, 6.66% for difficulty in voiding urine, 5% for urinary tract infections and 10% reported after failed attempt at separation of Labial adhesion with medical management of application of oestrogen cream.

Majority i.e. 88.33% girls were asymptomatic when accidentally discovered by mother while bathing or clothing, while 11.66% cases had difficulty in voiding urine or burning micturition. Only in 13.33% there was past history of vulval soreness or discharge.

In 43.33% cases there was complete labial adhesion involving the entire length of labia minora (Fig. 1) leaving only a pin point opening just under clitoris for escape of urine. Rest, presented with partial adhesion involving usually lower 2/3rd of labia minora. A vertical line in the middle i.e. the line of adhesion was universally seen and this feature is quite characteristic of this lesion. The mean interval between detection and reporting to the hospital was 3.2 months except in 2 cases, where labial adhesion had persisted for 2 and 3½ years respectively. In both these cases (6.5, 12 yrs) erroneous diag-

nosis of mullarian agenesis was made earlier by gynaecologists and thus no treatment was executed.

Further, it is interesting to note that there was not a single case with obvious vaginal discharge and vulval soreness detected clinically. Likewise, there was not a single case where gonococci were isolated from urethral swab taken after labial separation. Aerobic organisms were grown in 4 (6.66%) cases, but no significant correlation was noted.

On urological investigation done in 17 cases, urinary tract infection was found only in 2 cases. Urinary tract anomaly was not detected in a single case.

Treatment

In most cases (88.33%), lateral pressure by thumb on each side of introitus alone was sufficient as primary therapy to separate labial adhesion. Only rarely (11.66%) gentle strokes of the tip of curved artery forceps was required in the midline after applying xylocaine jelly. The procedure was completed in few seconds and was always successful. The discomfort was insignificant as it was reported as either mild or absent. In order to prevent recurrence of adhesion bland cream or ointment was applied for a week by mother. Mother was also advised to inspect the vulva at intervals. Forty three children came back after a week for follow-up and showed good results. None came back with recurrence of adhesion or scarring of labial margin.

Discussion

Labial adhesion in prepubertal girl is a clinical entity which causes concern mostly to the parents and sometime to

the doctor due to wrong diagnosis. When identified it can be very easily treated.

Most studies on subjects have shown that the average age at which the labial adhesion occur in premenarchal females appear to be variable. Our finding that in majority, the labial adhesion was seen between age group 2-6 years, is in agreement with Huffman's (1968) experience; but differs from Jeffcoate's (1968) and Capraro and Greenberg's (1972) experience, where majority of cases were detected before 2 years of age.

The commonest cause of referral in present study was müllerian agenesis (78.33%). However, Capraro and Greenberg (1972) found only 10 per cent cases were referred to them with wrong diagnosis of müllerian agenesis, adrenogenital syndrome and hermaphroditism. According to Dewhurst (1980), there is no real similarity in the clinical features of labial adhesion and congenital absence of vagina if careful inspection is carried out, but diagnosis may well be confused if only a casual inspection is made.

There is a lot of variability in frequency of urinary symptoms. Controversy also exists whether urinary tract infection is the cause or result following labial adhesion (Capraro and Greenberg, 1972). Nowlin *et al* (1949) and Capraro and Greenberg reported urinary symptoms in 20 per cent and 38 per cent respectively. In the present study, urinary symptoms were encountered in only 11.66 per cent cases; while urinary tract infection was confirmed in only 3.33 per cent cases.

General view supports that it is an acquired lesion and not a congenital one (Dewhurst, 1980; Jeffcoate, 1968). However there is considerable controversy on the precise cause of labial adhesions. Dewhurst (1980) relates it to low oestrogen status of the child, as such adhesions

are never seen in reproductive period. Contrary view is advocated by Capraro and Greenberg (1982) and Jeffcoate (1968), who blame low grade, nonspecific vulvitis, causing denudation of surface epithelium resulting in labial adhesion. Jeffcoate (1968) stressed that initial infection may even pass unnoticed. Our study also indicated that only in minority of cases it could probably be caused by preceding episode of vulvitis or vulvovaginitis, though we have never seen obvious vulval soreness or vulvovaginitis when the child presented with problem of labial adhesion to show definitive cause and effect relationship.

According to Brenner (1983), the need for treatment is based on the patient's ability to void urine spontaneously. He feels the adhesions separate spontaneously in majority of cases as the concentration of endogenous oestrogen in peripheral circulation increases in early puberty. However this view is not supported by many. Firstly, leaving the child alone without treatment is guaranteed to cause tremendous emotional trauma to the child and the mother. Secondly, endogenous oestrogen in the years of sexual development prior to menarche may not be sufficient to lyse the labial adhesion in clinical practice.

Local oestrogen therapy has been most used treatment for premenarchal labial adhesion (Aribarg, 1975; Capraro and Greenberg, 1972). However, it is generally not advisable to use it longer than 2 weeks since it causes undesirable pigmentation (Dewhurst, 1980). Contrary to general view, in our experience, separation can seldom be accomplished by local oestrogen cream. This could probably be related to poor treatment compliance by mothers of our patients. Instead, treatment of choice is mechanical

separation by thumb-pressure which results in extremely easy separation of labial adhesion. It is almost always successful. No case reported back with recurrence of labial adhesion or scarring. Local discomfort is insignificant to cause physical or emotional trauma to the child.

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See Fig. on Art Paper II