

Labial Fusion in a Post Pubertal Adolescent-A Case Report

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Abstract: *Labial fusion is defined as a fusion of the two labia minora in the midline of the vaginal introitus. The vaginal opening is sealed totally with a very small opening through which menses and micturition occurs, also called labial adhesion or labial agglutination. When the adhesions occur in the inner labia i.e., below the labia minora it is called vulvar adhesions. They are common in prepubertal adolescents but is a rare entity in adolescents after puberty. Patients usually present without symptoms but occasionally there may be genitourinary complaints. The decision for treatment is based on symptoms. Mostly reassurance to parents with proper counseling and careful attention to vulvar hygiene is important. Labial fusion affects 2-5% of babies and young girls, most commonly seen between 1-2 years of age (1). We are presenting a case of labial fusion in a 17 years old female who had this condition since birth. After a detailed history, thorough clinical examination and required laboratory and imaging investigations a diagnosis of labial fusion was made which was followed by reconstructive surgery.*

Keywords: Labial fusion, Labial agglutination, Labial adhesion, Genitourinary

1. Case Report

A 17 year old female presented to the gynaecological OPD with complaints of itching per vagina for the past 6 months. She attended menarche at 13 years of age, with regular menstrual cycles, average flow lasting for 5-7 days with occasional dysmenorrhea. She gave history passage of menstrual blood and urine through the single opening. There was no history of trauma, or history of any sexual abuse or allergic rash over the external genitalia.

The general and systemic examination were normal and her secondary sexual characteristics were well developed.

On local examination of the external genitalia, labia majora was normal. The labia minora was thick and densely fused in the midline and no urethral opening was visualized. The perineum was normal and a small pin point opening was visualized near the fourchette (Figure-1). Uterus felt on per rectal examination was normal in size. All routine examination including ultrasound examination was normal and a clinical diagnosis of Labial Fusion was made.



Figure 1: Preoperative view (Pre procedure appearance of labial adhesion) complete fusion of labia minora with a small pinhole opening near the fourchette

Patient was posted for reconstructive surgery under general anesthesia. The fused thick tissue was dissected and opened, following which the anterior wall of the vagina was visualized with normal rugosity. The tissue was further dissected by extending the incision upwards, and the urethral opening was visualized. Catheterization was done which showed free flow of urine (Figure-2). The mucosal skin was everted and stitched with catgut on either side (Figure-3).



Figure 2: Intraoperative view after dissection



Figure 3: Post operative view

Post operative period was uneventful and patient was discharged the following day. Follow up visit after two weeks and four weeks subsequently showed a normal introitus with no further complaints.

2. Discussion

Labia majora and labia minora constitute the external genitalia of the female reproductive system. There are two labia on either side of the urethra and vagina. When both the labia minora attaches with each other from both sides the result is a fusion.

Parents usually notice this quite early during change of nappies as a thin transparent membrane which covers the vaginal opening completely with a very small opening anteriorly through which passage of urine occur. Externally it appears as a case of absent vagina.

Sometimes there may be inability or difficulty to pass urine when the severity is more. The primary cause is not exactly known but can be due to low estrogen levels or due to irritation in the external genitalia with soap, feces or urine.

By puberty, the effect of estrogen alters the cells lining the epithelium of the external genitalia and the condition resolves. Many a times there is urine pooling in the vagina, so leakage can occur when patient is in standing position, but generally the condition is asymptomatic as seen in this particular case with menstruation and micturition occurring through the same pinpoint orifice.

Occasionally there is asymptomatic bacteria in 20 % of cases and 40% may have urinary tract infection (2). Surgical management is required in patients not responding to medical management (3). Recurrence rate following surgery is 11-14% (4), which may require use of skin flaps or amniotic membrane with success rates which are variable. For conservative management which is more applicable for pre pubertal girls, application of estrogen cream (conjugated estrogen or estradiol cream 0.01%) is applied one to two times daily for several weeks (5). Success rate of creams in literature is around 90% with minimal recurrence (6). Alternatively, betamethasone cream 0.05% topically twice daily for 4 to 6 weeks also have shown some benefit (7).

3. Conclusion

Fusion of labia minora is a rare entity in post pubertal girls and many a times require proper evaluation for an accurate diagnosis. Treatment with a simple surgical procedure as seen in this case can prevent recurrence and avoid unnecessary complications in adolescent girls.

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