A Commonly Misunderstood Condition in Young Girls

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A one-year-old female child was brought to Gynecological clinic at AIIMS Bhopal by her mother when she noticed that she was unable to visualize the vaginal orifice of the baby,while changing the diapers. According to her, the baby had a normal vaginal orifice opening at birth. She denied history of any trauma, or any lesions over the vulva. The child was able to pass urine without crying with an uninterrupted stream of urine. The child had normal height and weight for her age and has achieved all her developmental milestones. Her abdomen was soft, non-tender and there was no palpable mass. An examination of external genitalia [Figure 1], revealed a fusion of labial minora up to the urethral opening. The girl did not allow manipulation, as we tried to separate the labia manually.

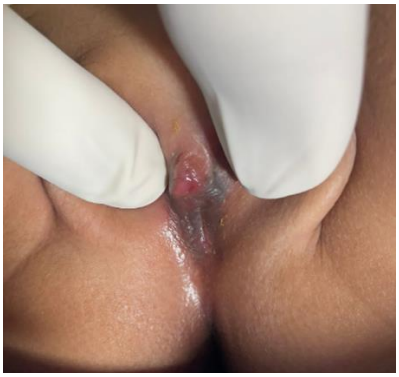

Figure 1: The external examination of vulva.

Questions

1. What is your diagnosis?

    a. MRKH Syndrome

    b. Imperforate Hymen

    c. Labial fusion

    d. Ambiguous genitalia

To make the diagnosis clearer, Figure 2 explains the comparison between a normal appearing labia minora and fused labia minora.

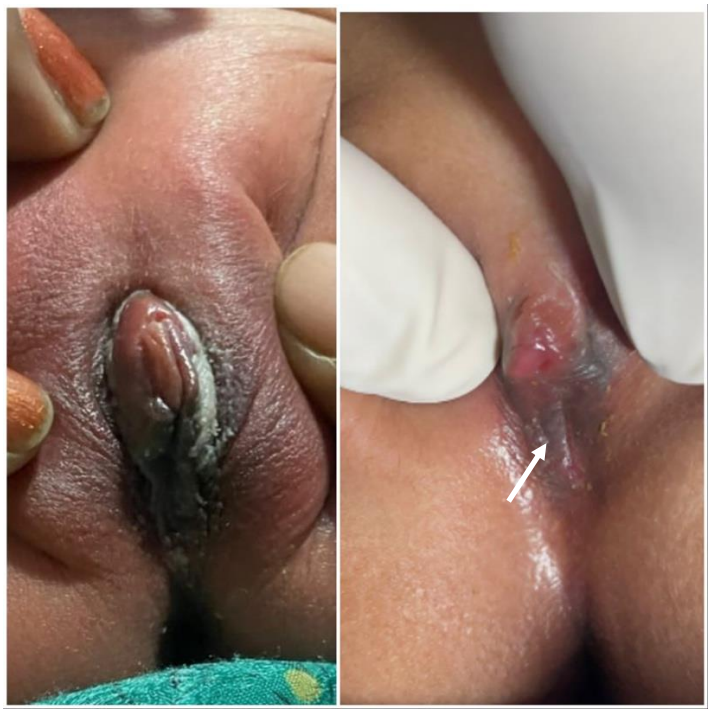

Figure 2: (a) Physical examination of vulva showing normal labial minora in a child. (b) Fused labia minora upto uretheral meatus in our case (as shown by white arrow)

2. What treatment is appropriate for the above patient?

    a. Immediate surgical intervention

    b. Topical estrogen application.

    c. No treatment as the child has no symptoms

    d. Bedside mechanical separation

Answers

1. a. Labial fusion

2. c. No treatment as the child has no symptoms

Discussion

Labial fusion or adhesion is the fusion of labia minora, most commonly near the clitoris due to the development of thin fibrotic tissue causing complete or partial closure of the vaginal orifice.[1] Most commonly, it is an acquired condition but can occur as a congenital anomaly, however, adhesions are thicker than in acquired condition and are

associated with genitourinary conditions.[2] Labial adhesion although a common condition in the pediatric age group is easily misunderstood as a genital anomaly.

It is reported in around 1.8% of girls, commonly between the age group of 13-23 months.[3] Thought exact pathology is unknown, the condition is mostly associated with low estrogen levels in pre-adolescent females. For the same reason, it is also seen in post-menopausal females. Other known causes are chronic inflammation, vulvar infection (genital herpes is commonly associated), poor hygiene, genital trauma, female mutilation, and sexual abuse. It is mostly asymptomatic and is noticed by the caretaker on routine physical examination. Some may develop symptoms like changes in the urinary stream, dribbling of urine, and urinary tract infections. Some severe cases present with acute retention of urine. Therefore, it is imperative to check for urinary tract infection in all cases of labial fusion. We should keep in mind differential diagnosis of imperforate hymen, hymenal tags, urethral prolapse and vaginal atresia.

In around 80% of the cases, the condition resolves spontaneously at puberty with no pain or any treatment, as the effect of estrogen changes in cells lining the genitals.[1] Consequently, reassurance and proper counselling of the parents are the mainstay of treatment protocol. In symptomatic cases, conjugated Estrogen cream (0.01%) is applied one to two times daily for 3-4 weeks or until adhesion resolves. Mechanical separation is rarely needed due to the risk of scarring and readhesion. Some cases may need Surgical separation, in thick adhesions or cases where separation is not possible manually. Despite all modes of treatment, the recurrence rate of adhesion is as high as 40%.[1] Thus parents of the girl should be thoroughly counselled for the cause, treatment of the condition and related recurrence.

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