Complete Labial Adhesion in a Post-Pubertal Girl: A Case Report

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Abstract- Labial adhesion usually occurs in the infancy period and in prepubertal girls. It is a rare entity in reproductive age without any hypoestrogenism condition. Voiding dysfunction is a rare manifestation of these conditions. Here, we report a 19-year-old girl with complete labial adhesion presented with urinary retention. A 19-year-old virgin girl was referred to the obstetrics and gynecology department of Ghaem Hospital. She complained of urinary retention. Physical examination was normal except that was moderate hypogastric tenderness and a huge vesical globe. Genital examination revealed complete fusion of the labia minora in the midline, extended from the posterior fourchette to the region of the clitoris covering the entire vaginal introitus, urethral meatus, and clitoris. Despite the use of topical estrogen cream and surgical labial separation, re-adhesion occurred for the third time. Vulvar biopsy confirmed severe inflammation. Finally, topical anti-inflammatory medication improved the symptoms. Although labial adhesion is very rare in the post-pubertal period, it can successfully be managed by medical and surgical treatment.
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Keywords: Labial adhesion; Reproductive age; Urinary retention

Introduction

Labial adhesion (also called labial agglutination and synechia vulvae) is a state of partial or complete adhesion of labia minora (1). This condition is a common finding in infants and prepubertal adolescents, and with less prevalence, sometimes it can be seen in postmenopausal women (2,3). Its occurrence in post-pubertal girls and reproductive-age women is so rare, and only a few cases have been reported in the previous articles (1,2,4). Voiding dysfunction and urinary retention are rare manifestations of this condition (1,2). Labial agglutination or adhesions may occur as a result of chronic vulvar inflammation (5). Here, we report a rare case of complete labial adhesion in a 19-year-old woman who presented with urinary retention.

Case Report

A 19-year-old virgin girl was referred to the obstetrics and gynecology department of Ghaem hospital, an academic hospital of Mashhad University of Medical Sciences, Mashhad, Iran, due to urinary retention and impossibility of urethral catheterization. She complained of progressive voiding dysfunction and lowered urinary tract symptoms, including strain to void, sense of incomplete bladder emptying, and recurrent cystitis during the past two years. She needed urethral manipulation for complete micturition. Her menarche was at the age of 12, and she reported having regular menstrual cycles but some degree of dysmenorrhea from a few months ago. She was a virgin and had no remarkable history of perineal trauma, vulvovaginal infection, sexual intercourse, or sexual abuse, just a history of using shaving powders in the past two years. Her physical examination was normal except that there was moderate hypogastric tenderness and a huge vesical globe. Her genital examination revealed complete fusion of the labia minora in the midline, extended from the posterior fourchette to the region of the clitoris covering the entire vaginal introitus, urethral meatus, and clitoris. Bilateral labia majors were normal, and there was just a pinhole opening at the lower part of the vulva (Figure 1). The ultrasound examination reveals a normal uterus, cervix, and normal size kidneys, without hydronephrosis. The hormonal status was normal.

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Suprapubic cystostomy was performed, and the patient was instructed to use topical estrogen and follow up visit one week later.

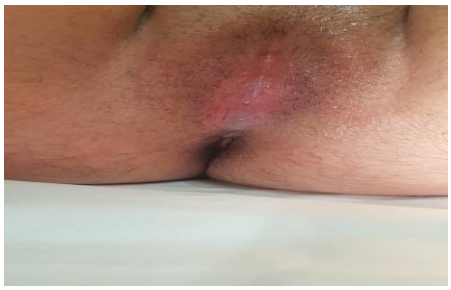

Figure 1. Complete labial adhesion with complete urinary retention

After one weak, the labial adhesion was surgically separated by sharp dissection due to no symptom improvement. We visited her 1 week after labial dissection. There was some degree of labial reattachment despite using topical estrogen.

Despite regular use of estrogen, the patient refers to us due to adhesion for the third time. On examination, the skin and labial mucosa were erythematous. Vulvar biopsy confirmed severe inflammation. Triamcinolone acetonide 0.1% twice a day for two weeks was prescribed. By the four-month, follow-up visit the patient noted a great improvement of the symptoms.

Discussion

Labial adhesion in the reproductive age and after puberty is very rare because these conditions usually are the result of hypoestrogenic status (2,4). Labial fusion can occur as a congenital anomaly; however, congenital cases have a thicker adhesion and are often accompanied by other genitourinary abnormalities (2). In the absence of congenital anomalies, chronic inflammation, vulvar infection (especially genital herpes), poor hygiene, genital trauma due to vulvar or surgical interventions, female circumcision, sexual abuse, or perineal injuries after vaginal delivery is reported as the causes of labial agglutination in some literature; however, in some cases, there are not any detectable etiological factor (1,4). In our case, hypoestrogenic was excluded due to the history of regular menstrual cycles and secondary sexual characteristic appearances of uterine and ovaries on ultrasound evaluation and normal hormonal levels. There was no history of trauma or sexual abuse. Jung Mi Byun *et al.*, reported a case of labial adhesion caused by Stevens-Johnson syndrome as the sequel of inflammation (6). Vulvar symptoms with suspected vulvar dermatosis are an indication of vulvar biopsy, and punch biopsy is adequate for most lesions, including inflammatory lesions (7). As in the current patient, chronic inflammation caused by using shaving powders was the only predisposing factor we found. The most prevalent symptoms in these conditions are urinary retention, voiding dysfunction, and coital difficulties, Like the current case who had recurrent urinary tract infections for the past two years and eventually developed urinary retention. Erdogdu *et al.*, reported a 33-year-old woman who presented with urinary retention due to labial adhesion with no detectable predisposing factors and mentioned only 6 cases of labial fusion with unclear etiology were detected in their research (1). Topical estrogen and manual separation of adhesions are accepted as the initial therapy in thin adhesion and in prepubertal girls and postmenopausal women (2,8). The surgical approach is the other strategy, especially in the case of thick fibrotic adhesion (1). If urinary or vulvovaginal symptoms occur, a brief course of (2-6 weeks) of externally applied estrogen cream or topical steroid is appropriate (9), just like the current case that was finally treated with topical anti-inflammatory medication.

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