



Case report

Idiopathic labial fusion in a young adult: a case report

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ABSTRACT

Labial fusion is a clinical entity rarely seen in adults. The reported case is a 25 years old, single, sexually inactive young adult with a regular menstrual pattern who presented to our clinic with closure of the vaginal introitus. Previous history regarding chronic conditions was not significant. Topical estrogen cream had been applied for one year with no benefit. Laboratory work-up revealed overt hypothyroidism. Levels of gonadotropins, estrogen, and androgens were normal. Complete fusion of the labia minora ending at the posterior fourchette was observed in genital examination. The clitoris could not be visualized and only a central 0.5 cm diameter surrounded by synechiae was seen. Surgical lysis was performed under sedative anesthesia to separate the labia. Labial fusion is usually seen in early childhood or postmenopausal years, but may arise idiopathically in adults without etiologic factors such as hypoestrogenism, chronic irritation, and infections of the vulva.

Key words: Labial fusion, labial agglutination, labial adhesion, synechiae vulva, young adult, idiopathic.

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Introduction

Labial fusion (labial agglutination, labial adhesion, synechiae vulva) is defined as the partial or total adhesion of the labia. It is usually seen in early childhood (<5 years of age) or postmenopausal period due to the hypoestrogenic status or lichen sclerosus [1-2]. Labial fusion is very rare in reproductive period. Labial fusion beyond childhood is usually associated with hypoestrogenism, chronic vulvar inflammation, infections, sexual abuse, or trauma.

In this case, we present a young adult with idiopathic labial fusion.

Case

A 25-year-old single female presented with the complaint of closure of vaginal introitus. She had no history of sexual intercourse or sexual abuse. Her menstrual pattern is regular since menarche at 12 years.

She stated that the appearance of vulva and genitalia was normal until last year when the adhesions were first noted. She was previously treated with topical estrogen cream in another medical institution without any benefit. Genital inspection revealed a complete fusion of labia minora end-

ing at the posterior fourchette. The clitoris could not be visualized. There was a central opening measuring 0.5 cm in diameter surrounded by adhesions (**Figure 1A**). There was no history of chronic infection or irritation. Secondary sexual characteristics appeared normal upon general examination. Transabdominally performed pelvic ultrasonography showed normal sized uterus and ovaries. Gonadotropin, estrogen and androgen levels were within normal ranges.

Laboratory workup revealed hypothyroidism that was treated with levothyroxine. Due to failure of previous medical treatment, surgical treatment was planned on patients demand. Under sedative anesthesia, the urethra was visualized beneath the fusion line. The fused line was incised by sharp dissection and primarily closed with 3-0 polyglactin sutures. The vaginal vestibule was exposed with narrowed but intact hymenal structure. The fusion at the clitoris was also dissected by a scalpel and the clitoris was exposed.

Postoperative period was uneventful and she was discharged with antibiotics and topical estrogen cream. Two months after the surgery, appearance of external genital anatomy seemed to be improved (**Figure 1B**).



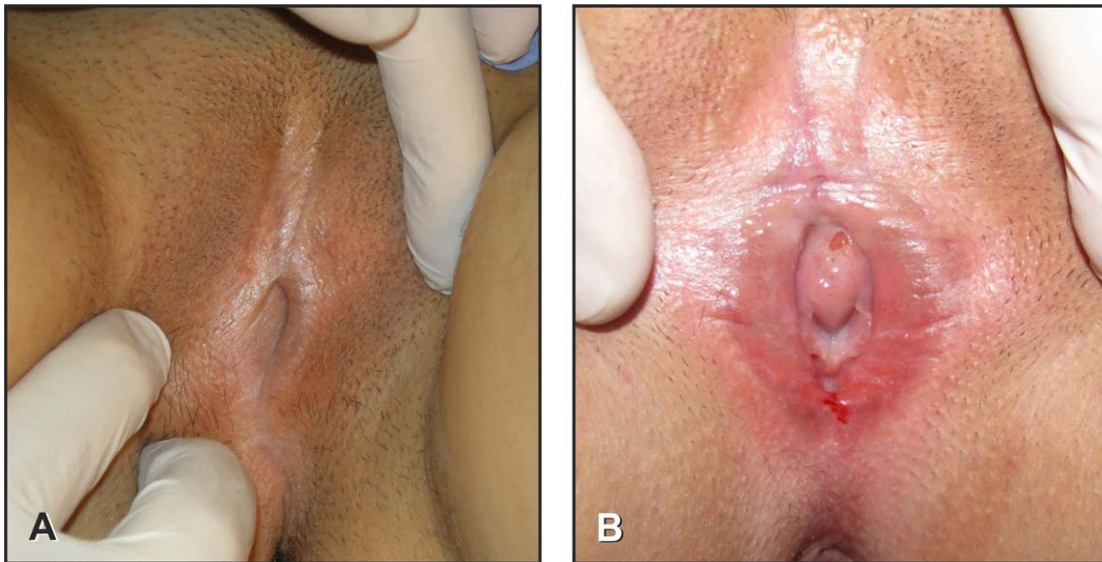


Figure 1. **A.** Preoperative appearance. Almost complete obliteration of vaginal introitus. **B.** Two months after the surgery.

Discussion

Labial fusion is a clinical condition affecting especially children (3 months to 6 years) and is occasionally seen in postmenopausal women. It has been reported to occur up to 1.8% of prepubertal girls and peak incidence is around 13 to 23 months of age [2]. In adults, it is usually associated with chronic infection, trauma, irritation, or estrogen deprivation [3-4]. Presenting symptoms in adults are urinary retention or incontinence, dyspareunia, and dysmenorrhea [4].

Topical estrogen cream is the first choice and is usually sufficient for treatment. There is no specific recommendation about the application, dose and the type of topical estrogen that depends on physician's preference [5]. Generally, due to high failure rates in brief duration of treatment (1-2 weeks), at least 4 weeks of treatment is advised before considering failure of treatment [5]. Duration of treatment up to 36 months were reported to achieve successful outcome [6]. Further interventions are not necessary unless the adhesions are severe and cause pain, urinary tract complications, and difficulty in coitus.

Surgical treatment might be used as manual separation or surgical lysis [7]. Twice daily application of topical betamethasone is a recently introduced alternative to topical estrogen in prepubertal girls [8-9]. There is no study about the application of betamethasone in adults with labial fusion.

Recurrences might be seen in any treatment modality and surgical approaches are associated with increased risk of adhesions and fibrosis [8]. Therefore patients should be evaluated and treated before any surgical attempt. Amniotic membrane grafting was recommended by Lin *et al.* in recurrent cases [10].

Even in asymptomatic patients, the cosmetic appearance usually troubles young women. For our patients betamethasone could have been tried because the patient's estrogen level was normal that we could exclude the role of estrogen deficiency. However, the patient in this case pre-

ferred surgical treatment due to failure of topical estrogen treatment.

This case of labial fusion showed that this rare pathology in adults might not be explained solely with known risk factors that other factors in etiology should be investigated by further studies.

References

- Gibbon KL, Bewley AP, and Salisbury JA. Labial fusion in children: a presenting feature of genital lichen sclerosus? *Pediatr Dermatol* 1999; 16(5): 388-91.
- Leung AK, Robson WL, and Tay-Uyboco J. The incidence of labial fusion in children. *J Paediatr Child Health* 1993; 29(3): 235-6.
- Bacon JL. Prepubertal labial adhesions: evaluation of a referral population. *Am J Obstet Gynecol* 2002; 187(2): 327-31; discussion 332.
- Kumar RK, Sonika A, Charu C, Sunesh K, and Neena M. Labial adhesions in pubertal girls. *Arch Gynecol Obstet* 2006; 273(4): 243-5.
- Tebruegge M, Misra I, and Nerminathan V. Is the topical application of oestrogen cream an effective intervention in girls suffering from labial adhesions? *Arch Dis Child* 2007; 92(3): 268-71.
- Schober J, Dulabon L, Martin-Alguacil N, Kow LM, and Pfaff D. Significance of topical estrogens to labial fusion and vaginal introital integrity. *J Pediatr Adolesc Gynecol* 2006; 19(5): 337-9.
- Nurzia MJ, Eickhorst KM, Ankem MK, and Barone JG. The surgical treatment of labial adhesions in pre-pubertal girls. *J Pediatr Adolesc Gynecol* 2003; 16(1): 21-3.
- Mayoglou L, Dulabon L, Martin-Alguacil N, Pfaff D, and Schober J. Success of treatment modalities for labial fusion: a retrospective evaluation of topical and surgical treatments. *J Pediatr Adolesc Gynecol* 2009; 22(4): 247-50.
- Myers JB, Sorensen CM, Wisner BP, *et al.* Betamethasone cream for the treatment of pre-pubertal labial adhesions. *J Pediatr Adolesc Gynecol* 2006; 19(6): 407-11.
- Lin YH, Hwang JL, Huang LW, and Chou CT. Amniotic membrane grafting to treat refractory labial adhesions postpartum. A case report. *J Reprod Med* 2002; 47(3): 235-7.

