# Diagnosis and surgical treatment of vulvar synechia in an adult woman. Case report.

Emergui Zrihen Yonit, Nieto Naya Maria de los Angeles, Valle Morales Leonor, Martín Martínez Alicia Inmaculada

Servicio de Ginecología y Obstetricia. Complejo Hospitalario Universitario Materno Infantil (CHUIMIC). Avenida Marítima del Sur s/n CP 35016. Las Palmas de Gran Canaria, España.

**ABSTRACT**

Labial fusion is a benign genital disorder, more frequently seen in girls in their first years of life. The reported incidence is between 0.3% and 3.3%. Its etiology is unclear. There are some factors that can promote its appearance, such as poor hygiene; or it can be the consequence of physiological hypoestrogenism, which produces atrophic changes, or chronic inflammation of the skin and mucosa. It is generally without symptoms, which is why it is usually diagnosed by chance. Its treatment can be conservative or surgical, depending on the degree of labial fusion. This report presents the case of a 32-year-old patient in whom vulvar synechia was diagnosed in the context of urinary retention.The case was resolved with surgical treatment.

**KEYWORDS**

Vulvar synechia, labial fusion.

## Introduction

Labial fusion is a benign genital disorder, more frequently seen in girls in their first years, and less frequent in reproductive-aged and menopausal women. Its etiology is not clear [1]. In some cases, the fusion may have been favored by some previous condition, such as wounds, inflammation caused by infections or allergies, ori t may be secondary to a local disease; in most affected girls, however, there is no evident inflammatory trigger. Low serum levels of estrogens are the usual cause of labial fusion [2]. Atrophic changes are produced by physiological hypoestrogenism in skin and mucosa; this, added to chronic inflammatory changes, leads to labial adhesion, and later to partial or total obstruction that sometimes makes it impossible to see the entrance to the vagina or the urethral meatus. Diagnosis is made by the direct inspection of the vulva, which may be motivated by difficulty with urination, or even urinary retention [3]. Treatment of the condition can be conservative or surgical, depending on the degree of labial fusion.

## Case description

The case of a 32-year-old female patient with a personal history of vitiligo and surgery for breast fibroadenoma and cholecystectomy is here presented. She was nulliparous, underwent menarche at 12 years of age, and reported irregular menstrual periods since she stopped taking oral contraceptives, prescribed to regulate her cycle. Her periods had always been light. Sexual activity had never been initiated. She was referred from her health center to the emergency room due to a 12-hour history of difficulty urinating, which had worsened, leading to urinary retention with constant pain in the hypogastrium. She had experienced similar episodes in the previous months. She reported absence of fever at home.

**Article history**

Received 22 Mar 2021 - Accepted 15 Apr 2021

**Contact**

Emergui Zrihen Yonit; yonittata@hotmail.com

On examination, the patient was found to be hemodynamically stable and afebrile, and in good general conditions. Her abdomen was soft and depressible, painful on palpation of the hypogastrium, with palpation of the bladder globe. The external genitalia showed depigmentation of the labia majora and synechia of the labia minora. It was not possible to canalize the urethra due to the pain the maneuver caused the patient; urine leakage was observed through a millimeter-sized orifice in the anterior area of the synechia. A transrectal ultrasound was performed, which confirmed the ballon bladder. The uterus was anteverted with regular contours. Below it, a well-defined anechoic image was observed, suggesting vaginal distention due to urine accumulation. Free fluid was observed in the pouch of Douglas.

Given the diagnosis of vulvar synechia (Fig. 1) and unresolvable urinary retention, due to the impossibility of catheterization of the bladder, it was decided to admit the patient for surgical treatment. In the operating room, a small hole was opened in the labia minora using a disposable bladder catheter. With a ribbed probe, tunneling was performed under the synechial area. By manual dissection, the labia minora were separated without incident, leaving edges with slight laceration, but with no bleeding. The urethra was visualized and, after canalization, there was abundant discharge of foul-smelling urine (Fig. 2). The vagina was washed with an antiseptic solution. Over the following days, local treatments were administered, initially

prontosan and blastostimulin, and later, hydrocolloid dressings. Finally, treatment with colpotrofin was prescribed. The patient was seen for a gynecology follow up after 6 weeks, in order to ascertain the final state of the external genitalia and, given the pathology presented and the menstrual alterations described, to evaluate the possible existence of an estrogenic deficit (Fig. 3).

## Discussion

Adhesion of the labia minora is known as vulvar synechia. The incidence of this disorder is between 0.3% and 3.3%, but there are studies that have described rates of up to 5% [3]. The highest incidence is found between 3 months and 6 years of age, with a peak between 13 and 23 months [1]. The etiology is not totally clear, but there are several theories. There are factors that can favor its appearance, such as inadequate or insufficient hygiene [1].

Generally, the condition has no symptoms, and the diagnosis is therefore often made by chance [2] on inspection of the vulva. Genital dysfunctions in adolescence or adulthood are related symptoms that, if present, may support the diagnosis [4], as in the case of the patient here described, whose initial reason for consultation was urinary retention. Vulvar synechia can also be found secondarily, related to another pathology such as lichen planus [5] in its most advanced form, so we should cosider it in patients with this history.

There are several options depending on the age of the patient, the degree of fusion, and the symptoms. In preadolescent girls with partial adhesions, without symptoms in urination and without recurrent urinary infections, an expectant attitude can be taken since, in many cases, the synechia resolves spontaneously during pubertal development due to the increase in estrogen levels. If this is not the case, or if there is difficulty in urination or painful symptoms before puberty, treatment is required [6].

The first therapeutic option is manual separation of the labia with the help of a topical anesthetic, such as a urological lubricant. Manual separation is a low-traumatic procedure, usually painless, that needs to be repeated to avoid recurrence. Another option is treatment with estrogen creams, which produce thickening of the labia minora and weakening of the union of them, thereby progressively facilitating their manual separation. The appearance or reappearance of the condition can be prevented by daily hygiene of the vulva with separation of the labia minora and application of vaseline or moisturizer. In more advanced cases, such as the one described, surgical release of the adhesion is needed [3,6] associated with a subsequent topical treatment.

## Conclusion

In childhood, it is important to differentiate vulvar synechia from imperforate hymen. In adulthood, it should be considered in the presence of genitourinary symptoms not explained by other causes, or in the presence of inflammatory skin diseases. It should not be ruled out in adult patients of reproductive age, in whom hypoestrogenism must be considered, or in postmenopausal women, even though it is rare in these cases.

**Figure 1** Vulvar synechia before surgery.

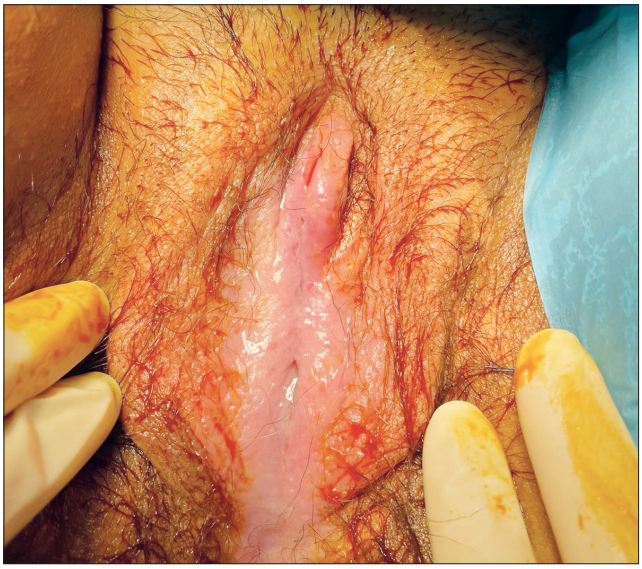


**Figure 2** Result right after surgery

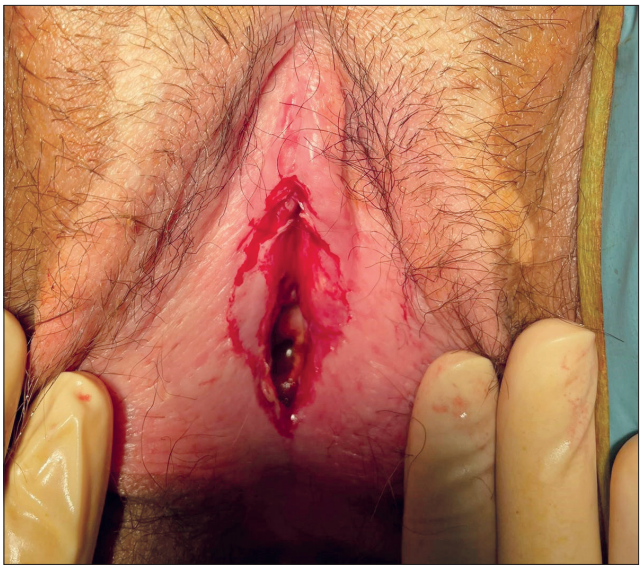
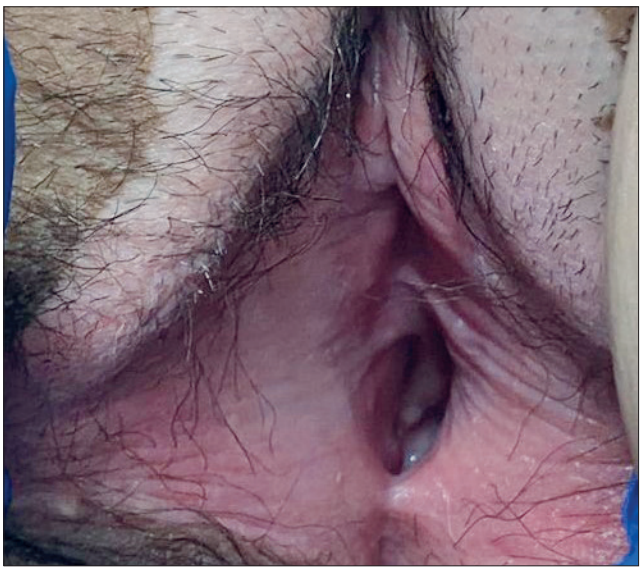


**Figure 3** Result after 3 month of treatment



## References


1. Christensen EH, Oster J. Adhesions of labia minora (synechia vulvae) in child-hood. A review and report of fourteen cases. Acta Paediatr Scand. 1971;60:709-15.
2. Barysh N. Vulvar fusion in infancy and childhood. N Engl J Med. 1954;250:637-8.
3. Barbosa Ardila SD, Tristancho Baró AI, Suescún Vargas JM. [Labial adhesions: re-view of the literature]. Arch Argent Pediatr. 2017; 115:597-601.
4. Guldberg R, Thybo S, Andersen B. Synechia vulvae -- an unusual cause of urinary symptoms in a 15-year-old girl. Acta Obstet Gynecol Scand. 2007;86:251-2.
5. Helgesen AL, Gjersvik P, Jebsen P, Kirschner R, Tanbo T. Vaginal involvement in genital erosive lichen planus. Acta Obstet Gynecol Scand. 2010;89:966-70.
6. Emans J, Goldstein D. Labial adhesions. In: Emans SJ, Laufer MK, Goldstein DP, eds. Pediatric and adolescent gynecology. 4th ed. Lippincott-Raven, Balti-more;1998: 101-103.


***Conflicts of interest statement:*** *The authors declares that there is no conflict of interest.*