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CASE REPORT

Nearly-complete postmenopausal labial agglutination: a case report and review of literature

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Abstract

Labial agglutination (LA) is most commonly described in prepubertal girls, but it is a rare clinical entity in postmenopausal women. LA in postmenopausal women is usually caused by a combination of inflammation and estrogen deficiency. We present the case of a 61-year-old woman with LA causing urinary problems during the postmenopausal period. Vaginal examination revealed near-complete labial fusion covering the external urethral meatus, with a pinhole opening at the introitus. The labia were separated by blunt dissection and manual lateral traction, resulting in the opening of the vaginal introitus and the external urethral orifice. The postoperative course was uneventful, and the patient was discharged on the third postoperative day. Surgery in conjunction with topical estrogen therapy may be effective in elderly patients with labial fusion.

Keywords: Labial fusion, postmenopausal female, vulvar lichen sclerosus.

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Introduction

Labial agglutination (LA) is the complete or partial fusion of the labia along the midline and is most commonly observed in prepubescent girls (primary LA), with a prevalence of 0.6% to 1.4% [1-4]. LA is referred to in the literature as vulvar synechiae, labial fusion, or labial adhesion [3-5].

LA is quite rare in the postmenopausal period (secondary LA) [1,3,6-7]. In the literature, this condition is presented as sporadic case reports [2-3,5-12] or small case series (< 10 cases) [13-14]. There are no available data on the frequency of LA in postmenopausal women [2-3,5,10]. Herein, we present a case of LA causing urinary problems in a postmenopausal woman.

Case report

A 61-year-old woman, gravida 3, para 2, presented to the Department of Surgical Gynecology with a 9-month history of voiding difficulty, postmicturition dribbling, and discomfort in the vulvar region. The patient was 10 years postmenopausal and had been sexually inactive for more than 7 years. She had been followed by the Department of Dermatology for lichen sclerosus for the past 3 years, which had been confirmed by biopsy at the dermatology clinic. Her general condition was satisfactory. Complete blood count and biochemical parameters were all within the normal ranges.

Physical examination revealed normally developed external genitalia, adhesion of the labia minora along the midline, covering the urethra, and a pinhole opening at the introitus (Figure 1).

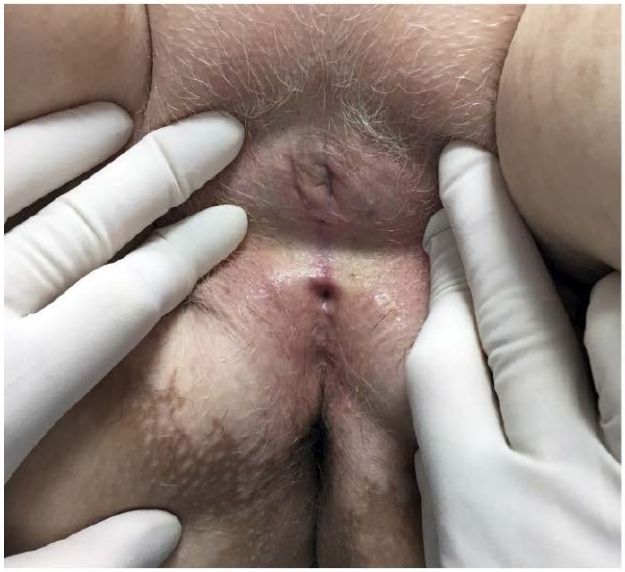

Figure 1. Adhesion of the labia minora and a pinhole opening at introitus.

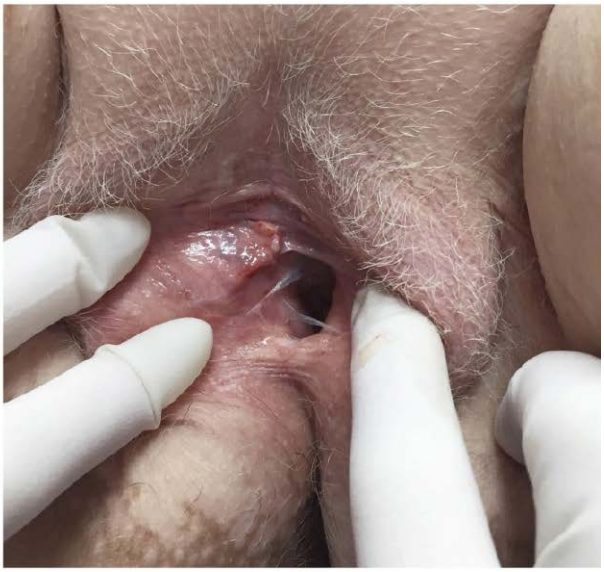

Figure 2. Vulvar appearance after blunt dissection and lateral labial traction.

Under general anesthesia, the labia were separated by blunt dissection and manual lateral traction, resulting in the opening of the vaginal introitus and the external urethral orifice (Figure 2). A Foley catheter was placed into the bladder, draining 300 mL of urine and preventing contamination of the wound with urine. The catheter was removed 48 hours after surgery.

The patient made a satisfactory postoperative recovery. She was discharged on the third postoperative day with recommendations for long-term use of topical estriol cream: one daily application of 0.5 mg estriol for the first 2-4 weeks, followed by one application twice weekly, and self-separation of the labia using a finger. The patient underwent paraclinical investigations before the initiation of treatment. A transabdominal ultrasound performed before treatment showed a small uterus and a linear endometrial echo. Follow-up ultrasound examinations performed at 6 and 12 months showed no changes in endometrial thickness. The anatomy of the external genitalia was completely restored, there was no recurrence of LA, and the urinary symptoms were completely relieved. Written informed consent was obtained from the patient for the publication of this case report and the accompanying images.

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Discussion

LA in postmenopause is a rare phenomenon. This is supported by the systematic review published by Mahmoudnejad et al. [1], in which an analysis of the Embase, PubMed, Web of Science, and Scopus databases identified only 54 cases of LA reported in the literature between 1985 and December 2023 [1].

To date, the exact cause of LA is unknown, but potential risk factors include low estrogen levels, lack of sexual activity, cervical cancer, a history of hysterectomy, and lichen sclerosus [1-2,6-7,10]. Low estrogen levels are considered a predisposing factor for trauma and inflammation of the superficial epithelium of the external genitalia [6]. Triggering factors for the development of LA include chronic inflammation caused by inadequate hygiene, eczema, seborrheic dermatitis, lichen planus or lichen sclerosus, mechanical trauma, radiotherapy, and recurrent urinary tract infections [12,14].

The clinical manifestations of LA depend on the extent of labial fusion and vary from being asymptomatic to minor complaints such as vulvar itching, malodorous discharge, dyspareunia, frequent urination, a weak and intermittent urine stream, dysuria, urine leakage after urination, recurrent urinary tract infections (UTIs), urinary incontinence, or acute urinary retention [2,5-6,8-9,11-14]. Tîrnovanu et al. [10] described a rare complication of LA — urocolpos and grade 1 bilateral hydronephrosis — in an 84-year-old woman [10].

Vulvar adhesions are diagnosed clinically and do not require laboratory or imaging studies [6-7]. The extent of LA varies from partial to complete fusion of the labia minora, with covering of the external urethral opening and vaginal introitus, leaving only a pinhead-sized opening visible [2-3,5-7,9-11,13]. In cases of severe urinary outflow obstruction, a bulge may be present in the external genital area due to urine accumulation in the vagina (urocolpos) [8].

Due to the rarity of LA in postmenopausal women, there are currently no practical recommendations or generally accepted treatment strategies for this condition [2-3,7]. The lack of standardized methods for treating LA poses a potential risk of recurrence after treatment [7]. Depending on the extent of LA, treatment options include topical application of estrogen cream, manual separation, or various methods of surgical dissection of adhesions [5,9,12].

Local use of hormonal therapy as a standalone treatment for LA in postmenopausal women is ineffective in the vast majority of cases [6-8,10]. At the same time, topical estrogen therapy is considered a mandatory component after surgical correction of LA, promoting optimization of reparative processes and prevention of recurrence [2-3,5-6,8,12-13]. Additional methods of preventing recurrence include regular warm baths, followed by the application of a bland ointment and self-administered lateral traction of the labia or the use of vaginal dilators [10,15].

Surgical correction of LA involves blunt or sharp dissection to expose the external urethral opening and vaginal introitus [2,5,8-9,11-14]. In some cases, sutures were applied to reduce the wound surface, or labiaplasty was performed (Z-, U-, or Y-plasty, or a combination thereof). These techniques were used to prevent recurrence of vulvar synechiae [3,8-11,13]. Bi et al. [7] described the successful topical application of recombinant fibroblast growth factor after surgical dissection of LA to improve epithelialization of the wound surface.

It should be noted that in patients with LA and associated urological symptoms, significant or complete regression of symptoms is observed after surgical correction of vulvar synechiae [3,6,8,11,13]. Follow-up of postmenopausal patients after surgical dissection of LA for 1 month to 5 years showed no recurrence [3,5-6,8-9,11,13-14]. Although the recurrence rate of vulvar synechiae after surgical separation was 1.85% according to a systematic review of the literature, the authors concluded that additional studies with longer follow-up periods are needed to more accurately determine the recurrence rate of LA after surgical treatment [1].

Conclusion

Labial adhesion is rarely observed in postmenopausal women. Labial adhesions in postmenopausal women are usually caused by a combination of inflammation and estrogen deficiency. Surgical separation followed by topical estrogen therapy may contribute to satisfactory outcomes.

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Conflict of Interest

The authors report no conflict of interest

Authorship Contributions

Anna Mishina, Patricia Harea, Ala Suman, Igor Mishin: Design and conception; Anna Mishina, Patricia Harea, Ala Suman, Igor Mishin: Data Collection or Processing; Anna Mishina, Patricia Harea, Ala Suman, Igor Mishin: Analysis or Interpretation; Patricia Harea, Ala Suman, Igor Mishin: Literature Search; Anna Mishina, Igor Mishin: Writing.

Conflict of interest

The authors declare having no conflicts of interest.

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Ethics informed consent

Written informed consent was obtained from the patient for the publication of this case report and the accompanying images.

References

1. Mahmoudnejad N, Hamidi Madani M, Roohinezhad R. The labial adhesion in postmenopausal women: A systematic review. Iran J Med Sci. 2024;49(12):752-760.
2. Laih CY, Huang CP, Chou EC. Labial adhesion in a postmenopausal female: A case report. Medicine (Baltimore). 2020;99(26):e20803. https://doi.org/10.1097/MD.0000000000020803
3. Maeda T, Deguchi M, Amano T, et al. A novel surgical treatment for labial adhesion - The combination of Z- and Y-V-plasty: A case report. Case Rep Womens Health. 2021;32:e00363. https://doi.org/10.1016/j.crwh.2021.e00363
4. Mișina A. Adeziunea labială la adolescentă. Buletin Perinatol. 2021;(3):96-99.
5. Gungor Ugurlucan F, Yasa C, Tas IS, et al. Complete labial fusion causing urinary retention in a postmenopausal woman. Am J Clin Exp Urol. 2021;9(5):413-415.
6. Saberi N, Gholipour F. Extensive labial adhesion causing voiding urinary symptoms in a postmenopausal woman: A case report. Iran J Med Sci. 2020;45(1):73-75.
7. Bi Y, Chen Y, Li W, et al. Experience with successful treatment of severe recurrent vulvar adhesions: A case report. Front Surg. 2023;10:1052133. https://doi.org/10.3389/fsurg.2023.1052133
8. Eriksen J, Glavind-Kristensen M, Guldberg R. Complete labial fusion in a postmenopausal woman: unusual cause of urinary symptoms. Int Urogynecol J. 2019;30(2):331-333. https://doi.org/10.1007/s00192-018-3770-8
9. Kwon H. Nearly-complete labial adhesions diagnosed with repetitive cystitis in postmenopausal women: A case report. World J Clin Cases. 2022;10(35):12990-12995. https://doi.org/10.12998/wjcc.v10.i35.12990
10. Tîrnovanu MC, Cojocaru E, Tîrnovanu VG, et al. Bladder outlet obstruction due to recurrent complete labial fusion in postmenopausal woman-Case report. Diagnostics (Basel). 2024;14(23):2659. https://doi.org/10.3390/diagnostics14232659
11. Tanvir T, Meeta M, Singh A. Complete labial fusion causing pseudo-urinary incontinence: A long-term sequelae of genitourinary syndrome. J Midlife Health. 2020;11(4):257-259. https://doi.org/10.4103/jmh.JMH_34_20
12. Chang CP, Hsu FK, Lai MJ, et al. Voiding difficulty due to nearly complete labial fusion in a post-menopausal woman. Taiwan J Obstet Gynecol. 2020;59(4):621-622. https://doi.org/10.1016/j.tjog.2020.05.030
13. Mikos T, Lioupis M, Grimbizis GF. Postmenopausal complete labial fusion and pseudo-incontinence: A case series. Case Rep Womens Health. 2019;21:e00101. https://doi.org/10.1016/j.crwh.2019.e00101
14. Singh P, Han HC. Labial adhesions in postmenopausal women: presentation and management. Int Urogynecol J. 2019;30(9):1429-1432. https://doi.org/10.1007/s00192-018-3821-1

doi.org/10.11138/ego.8

15. Kling JM, Saadedine M, Faubion SS, Kapoor E. Sexual Health Update in Women. J Womens Health (Larchmt). 2023;32(1):10-14.
https://doi.org/10.1089/jwh.2022.0392

doi.org/10.11138/ego.8