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IMAGES IN UROGYNECOLOGY

Complete labial fusion in a postmenopausal woman: unusual cause of urinary symptoms

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Introduction

Labial fusion (LF) is a rare condition defined by a complete or a partial adhesion of the labia minora in the midline. It has been reported at different stages of life and is divided into primary and secondary LF [1]. Primary LF usually occurs in young girls before the age of 2 (incidence ≈ 1% [2]) and at any age before puberty [1].

Secondary LF occurs after puberty. It is extremely rare, both in the reproductive and postmenopausal population, with only a few documented cases in the literature [1, 3]. It is usually caused by estrogen deficiency, particularly in nonsexually active postmenopausal women affected by advanced lichen sclerosus et atrophicus [1].

Complete LF can result in a very poor urinary flow and a reflux of urine filling the vagina causing urocolpos, dribbling, and a predisposition to ascending infections [1].

Presentation and management

A formerly healthy 82-year-old postmenopausal woman was admitted to hospital because of urinary problems. She was married but had never given birth and had not been sexually active for 10 years.

She complained of having prolonged urination for 1 year, duration up to 1 hour, poor urinary flow, often only a few drops, new-onset urinary stress incontinence, leakage with coughing/sneezing, and a feeling of a bulge in the vaginal introitus. She had no history of urinary tract infections.

General physical examination had normal findings. Vaginal examination showed LF (Figs. 1, 2), which

Fig. 1 Initial examination: 3 May 2017. Vaginal examination showed a complete fusion of the labia minora from the clitoris to the posterior fourchette with a tiny hole of a maximum of 1 mm through which the patient was voiding. Because of the LF, the introitus, urethral orifice, and clitoris were not visible. Manual separation was impossible. Pubic hair was present, but sparse consistent with her post-menopausal status. External genitalia had no typical cutaneous signs of lichen sclerosis or lichen planus. Ultrasound investigation of the urinary bladder showed no urinary retention

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Fig. 2 Preoperative: 18 May 2017. The patient was primarily treated with topical estrogen/steroids to moisten and prepare the skin for surgery: estriol vaginal cream 1 mg/g once a day and clobetasol propionate ointment 0.5 mg/g once a day. She was seen again 2 weeks later and was prepared for surgery. As illustrated on the image, still only a small hole in the vulva was visible

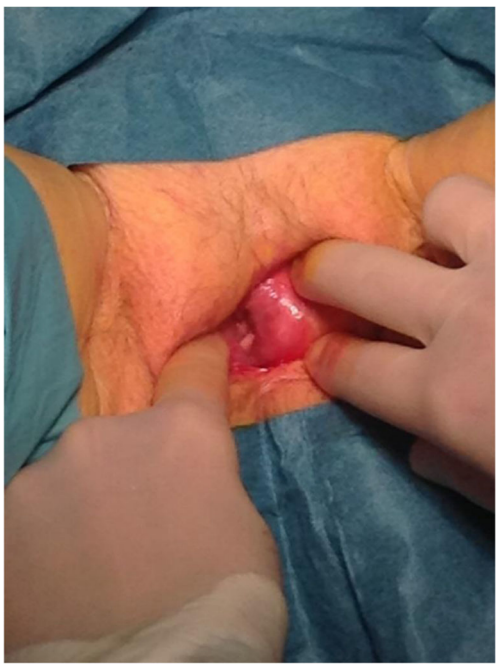

Fig. 3 Operative: 22 May 2017. The patient was admitted for surgery under local anesthesia with mepivacaine 10 mg/ml, adrenalin 5 μg/ml, 10 ml, 25 μg fentanyl, and 0.5 mg alfentanil. By blunt dissection, the labia minors were separated until the vagina and urethra were clearly visible. On the left side of the introitus two stitches with Novosyn 3–0 were placed to avoid a raw wound area with a tendency to re-agglutinate. Afterward, the patient was sent home and instructed to continue treatment with daily topical estrogen/steroids

Fig. 4 Postoperative: 5 June 2017. Two weeks postoperatively, the urinary flow was significantly improved, but vaginal examination showed regression with partial agglutination of the labia covering the clitoris and urethra. After application of lidocaine gel the labia were separated manually. The patient was afterward instructed to continue applying topical estrogen/steroids and drag the labial skin apart on a daily basis. The patient was instructed in the postoperative use of topical estrogen/steroids combined with manual separation of the labia. This was to ensure continued lubrication of the area and to avoid refusion of the labia. The patient was not instructed to use a dilator, as the manual treatment affects the patient's daily living less, especially when the patient is not sexually active. One week later, vaginal examination showed no relapse of agglutination. The urethra was clearly visible, and a speculum could easily be placed in the vagina. Postoperatively, the patient continued the treatment with topical estrogen/steroids and was finally seen on 22 September 2017, when she had no urinary symptoms

had caused a urine-filled bulge in the vaginal introitus. No cultures, urine analysis or biopsies were performed.

The patient was treated with a simple surgical procedure of blunt dissection combined with secondary topical estrogen/steroids (Figs. 3, 4), after which all her urination problems disappeared.

Conclusion

Labial fusion is often associated with lichen sclerosus, which was not the case in this presentation and management. As a hypothesis, it can be assumed that LF in this patient had the etiology of postmenopausal vulva hypo-estrogenization and no intercourse for approximately 10 years.

Compliance with ethical standards

Conflicts of interest None.

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

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