Case Report

J Nepal Health Res Counc 2019 Jan-Mar;17(42): 122-4

DOI https://doi.org/10.33314/jnhrc.1878

Complete Labial Fusion in a Postmenopausal Woman Presenting with Retention of Urine

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ABSTRACT

Complete labial fusion with retention of urine is a rare clinical entity. It occurs when the labia are fused in midline, forming a raphe. It usually develops in postmenopausal women with hypoestrogenism. The usual treatment is with topical estrogen and surgical separation followed by some dilatation. Here we present a case of a 58 years' postmenopausal,unmarried, nullipara woman who came to our emergency ward with retention of urine.She had history of incomplete voiding and dribbling of urine since six months. General examination and investigations were normal. Her clitoris was normal in size, and the labia majora and anus were visualized well; however, the urethral meatus and vagina were not seen because of fused labia minora.Patient required surgical excision of fused labial folds to relieve the retention.

Keywords: Labial fusion; postmenopausal; urinary retention.

INTRODUCTION

The labia covers and protects the urethral opening and the vagina. Adhesion of the labia minorararely results in complete labial fusion; more often it is partial.[1] It usually occurs in pre-pubertal girls and rarely in older women, suggesting a hypoestrogenic etiology, however the exact cause is unclear. The fusion is usually associated with low estrogen levels and chronic vulval inflammation.[2] Labial fusion or adhesions in pre-pubertal girls and are known as primary labial adhesions. Secondary labial adhesions in older women are also due to estrogen deficiency, particularly in sexually inactive older women after menopause.It may also be caused by scarring or fibrous tissue that forms after inflammatory skin disease like lichen sclerosus, malignancy, surgery or trauma. The common symptoms are difficulty in micturition, but most common is urinary tract infection. Surgical lysis for complete fusion is usually achieved with sharp dissection and suturing of the rough edges if necessary.Topical estrogen is helpful in some. We report a case of a post-menopausal unmarried woman who developed retention of urine following complete fusion of the labia.

CASE

A 58-year-old post-menopausal woman visited our hospital due to acute retention of urine for 12 hours. Her symptoms began six months prior; she started having difficulty in voiding which was becoming worse with poor urinary stream, dribbling of urine with incomplete bladder emptying and associated lower abdominal pain, non-radiating, non-aggravating, increasing in severity with the urge to void.She did not complain of any per vaginal discharge and itching over vulvar area. Her bowel habit was normal.She denied any history of trauma. She is a chronic hypertensive, taking an antihypertensive drug for 3 years. She is unmarried, and had no sexual relationships.

Her overall clinical examination did not reveal anything abnormal, although a thorough gynecological examination was not feasible due to complete labial fusion (Figure 1).

There was no visible opening that would allow urination, therefore she had retention of urine. There was complete fusion of the labia minora, with the vaginal introitus and external urethral meatus completely obscured.Urinalysis and urine culture were negative for infection. Ultrasonography of abdomen and pelvis was normal.Labia was surgically separated in the midline under local anesthesia. General anesthesia was not given due to appearance of frequent premature ventricular beats in cardiac monitor.Sharp dissection was done to separate the labia and the bleeding was minimal. External urethral orifice was not stenosed, the vagina was normal in capacity, diameter and length; and

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no adhesions were noted inside the vagina. Prophylactic antibiotic was given. A mould prepared with Plaster of Paris and covered by condom was kept in the vagina for three days to prevent re-adhesion and Foley's catheter was inserted in the urethra(Figure 2).

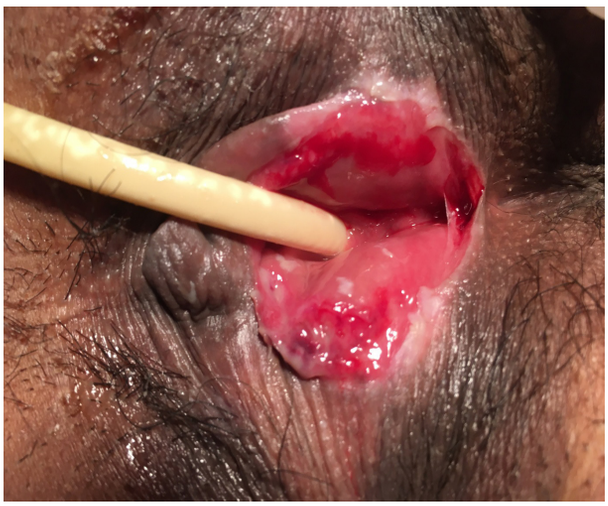

Figure 1. Showing the midline fusion, no opening and the prominent clitoris.

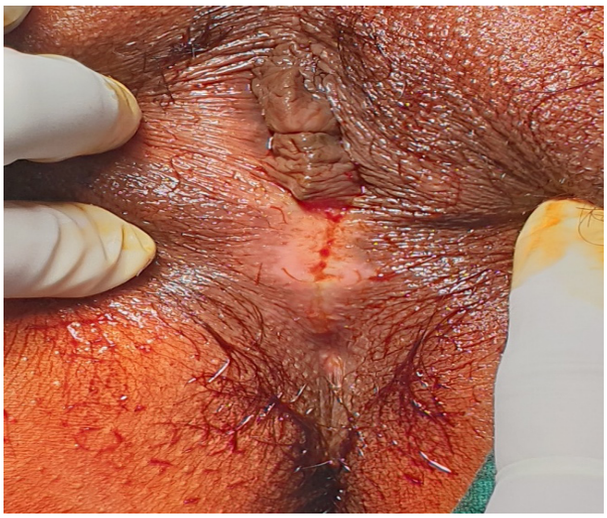

Figure 2. Post-operative appearance of the labia after the dissection and separation with a Foley's catheter in the urethra. The internal tissue of the vagina was quite normal.

Additionaltreatment with local estrogen, topical steroid and digital massage were administered after surgery to avoid recurrence. The patient recovered well post-operatively. She was observed for 24 hours with a vaginal mould lubricated with topical estrogen. . She was discharged with instructions to apply daily topical estrogen and steroid to the vaginal introitus and to use digital massage to maintain introital patency and prevent re-closure. She was advised to come for regular follow up.

DISCUSSION

Labial fusion is an uncommon condition in older women. It can cause obstructed voiding resulting, in the vagina filled with urine and retention of urine in severe case. Serious kidney damage due to urinary obstruction and recurrent urinary tract infections has been recorded.[3]

When the labia are fused together, the opening is smaller and the skin cannot stretch. In severe cases the introitus can be as small as a pinhead. Symptoms may be absent or the adhesion may lead to dribbling of urine upon standing up after micturition, dyspareunia, itching and soreness. As complete or partial labial fusion can result in urinary tract obstruction and infection of varying degrees, renal function assessment is needed in long standing cases.

Treatment depends on the cause of the fusion and options can be the followings: use of estrogen cream, most often prescribed after menopause and topical corticosteroids to control inflammation, manual division by gently stretching the two sides until they separate and regularly stretching the opening using fingers, vaginal dilators or regular sexual intercourse and surgery to remove scar tissue (Fenton procedure) in some cases. Blunt or sharp separation with local, regional or general anesthesia is also commonly done.[1]In young girls, medical treatmentwith topical steroid and estrogen applied for 2–3 months, hasa success rate of 78 %.[4] However, topical estrogen or steroids do not have the same success rate in postmenopausal women, although it should be tried as first-line treatment in management oflabial fusion. Typically, superficial and partial fusions are usually treated with topical estrogen therapy with or without topical steroids which may be successful in some cases. If there is no response to topical therapy, surgical separation under anesthesia should be performed.

In case of complete fusion of labia minora and failed estrogen treatment, labial separation can be achieved by using serial Hegar dilators (labial separation can be performed using blunt separation in postmenopausal women) to restore normal introital anatomy.[2] The separation of fused labia normally needs to be performed under general anesthesia, but in our case it was done under local anesthesia with some sedation; due to persistent premature ventricular beats..

Recurrence of labial fusion has been previously described in the literature.[5] Fusion of the labia tends to recur, so

daily digital separation of the labia when applying the cream is necessary, and long-term follow-up of such patients is recommended.

CONCLUSIONS

Complete labial fusion means that urine and vaginal fluids build up behind the fused labia; this is an emergency and urgent medical assistance should be sought. Post-operative instructions must be given to patients to prevent the re-occurrence of the fusion.

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