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Case Report

Labial adhesion or fusion-an unusual cause of urinary incontinence in an elderly woman

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ABSTRACT

Labial adhesion/fusion is an uncommon cause of urinary and vulval complaints in adult females, with unknown incidence. We present a case report of an elderly woman who presented with voiding difficulty, recurrent urinary tract infection (UTI) and urinary incontinence. She was treated by surgical division of the adhesions and had complete resolution of her symptoms.

Keywords: Labial adhesion/fusion, Urinary incontinence, UTI

INTRODUCTION

Labial adhesion/fusion which is also known as labial agglutination or synechia vulvae is a common vaginal condition in prepubertal girls. Incidence of labial fusion has been reported to be 0.6-1.4% in children; however, incidence in the adult women is not yet known.[1,2] It commonly occurs in postmenopausal women and is associated with hypoestrogenic state, local inflammatory conditions, and vulvar dystrophies such as lichen sclerosus.[3] The diagnosis of labial fusion is usually made by visual inspection. The condition may remain asymptomatic for a long period of time in these post-menopausal women and clinical symptoms present only when complications occur. Recurrent UTI and hydronephrosis can result from disturbances in voiding. We report case of labial adhesion in an 86-year-old woman.

CASE REPORT

An 86-year-old-lady, 3rd para with unremarkable medical history came to outpatient clinic with 3-year history of voiding difficulty and recurrent UTI. For the last few weeks, she experienced continuous dribbling of urine causing soiling of her clothes. She attained menopause at 48-year, and her last child birth was at the age of thirty-two years. She does not recall any history of vaginal discharge or vulval irritation in the past. Examination of the vulva revealed that both the labia minora were extensively fused.

The labial adhesions were seen covering the vaginal introitus and clitoris with small pin-hole opening in the midline. Urine culture showed growth of *E. coli* sensitive to fluoroquinolones and beta-lactams. Both labia minoras are separated by blunt dissection under regional anaesthesia. After separation of labia minora, urethra and vagina were normal. She was given oral antibiotics for a week according to sensitivity pattern. Patient was advised manual separation, sitz bath and muprocin ointment for local application. She was instructed to apply estrogen cream locally. At 1-month follow-up, the labias were well healed with no recurrence. She did not have any voiding difficulty or urinary incontinence.

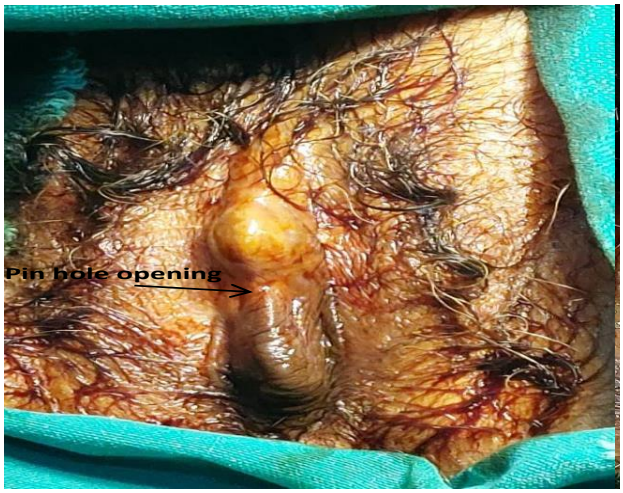

Figure 1: Fused labia majoras and clitoris with a pin hole opening in midline.

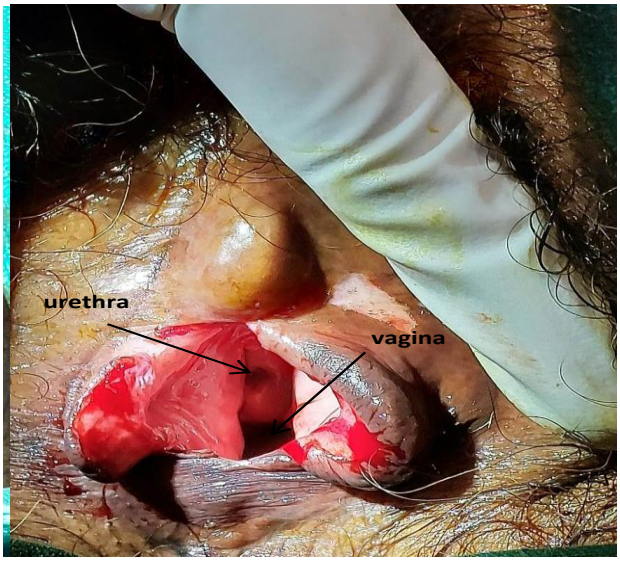

Figure 2: Urethra and vagina visible after separation of labia majoras.

DISCUSSION

Labial adhesion is defined as complete or partial fusion of the labia minora in the midline through flimsy or dense adhesions.[4] It may be congenital or acquired. It is a condition comparable to phimosis in males. Acquired cases are mainly seen in oestrogen deficiency states in prepubertal girls and postmenopausal women. Urinary incontinence prevalence in women ranges from 25-45% in most studies and increases with age.[5] The prevalence rates are even higher in elderly women. One etiology of urine incontinence that is not frequently reported is labial adhesion.[6] Labial adhesions may be asymptomatic or present with urinary or vulval complaints. Urinary symptoms include dysuria, frequency and urgency of urination, straining to void and poor urinary stream, sensation of incomplete emptying, postmicturition dribbling, incontinence, enuresis, urinary retention and recurrent UTIs. On examination, the labia typically appear flat with loss of elasticity and presence of a vertical midline membrane or raphe, which may be flimsy or thick.[7] Unlike the paediatric cases where usually only the labia minora are involved in the fusion, the labia majora may also be involved in postmenopausal patient. Management in mild cases includes the application of topical oestrogen. Topical steroids (betamethasone, clobetasol 0.05%) can be prescribed in inflammatory conditions such as lichen planus or sclerosus.[8] The labia can be separated by blunt or sharp dissection along the line of fusion under anaesthesia to expose the vagina and urethral meatus. Separation using serial Hegar dilators to decrease trauma has also been described.[9] Hatada et al described a two-step surgical approach in which cervical dilators are introduced through the opening to separate the lower portion of the fusion followed by separation of the remaining adhesions from the inside using fine curved forceps.[10] This method decreases the risk of recurrence by avoiding sharp dissection. Fakheri et al. described blunt dissection of adhesions using cautery aiming to decrease blood loss and scarring.[11] Punch biopsy of vulval inflammatory lesions can be taken if deemed necessary at the time of surgical separation. The raw skin and mucosa around the separated labia can be approximated using 3-0 or 4-0 vicryl sutures to bury the denuded areas and reduce the risk of recurrence. Recurrence of adhesions occurs in 14-20% of patients who have undergone surgical or manual separation; hence it is important to emphasize the importance of oestrogen cream application and regular digital separation of the vulva, especially in patients who are not sexually active.[6]

CONCLUSION

The prevalence of labial adhesion in postmenopausal women remains unknown, with very few documented cases. It remains to be seen whether labial adhesion is rare in postmenopausal women, or the condition is under reported. The culprit in both prepubertal and postmenopausal women is the lack of oestrogen. With high urinary incontinence prevalence among elderly women, one must keep in mind, labial adhesion as a cause and local examination must not be omitted in such patients.

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