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Urology

ATYPICAL CAUSE OF BLADDER OUTLET OBSTRUCTION IN A PUBERTAL FEMALE

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ABSTRACT Labial adhesion is a state of partial or complete adhesion of the labia minora. It is commonly seen in prepubertal or postmenopausal women as they have low estrogen levels. It is rarely seen in reproductive age group due to abundance of estrogen. We present a neglected case of labial adhesion in a 17 years pubertal girl of who had an uncommon presentation and was managed differently. Detailed history and clinical examination was done along with all necessary laboratory and imaging studies and final diagnosis was made, after which surgery was done. Labial adhesiolysis and urethro-cystoscopy was done. Post op period and follow up was without any complication. There are special situations in which labial adhesions can be treated surgically however treatment is individualised in every case ranging from medical management to surgery.

KEYWORDS : labial adhesion, estrogen, adhesiolysis, labia minora, uncommon presentation

INTRODUCTION

Labial adhesions, also called as labial fusions, is a clinical state, which is seen commonly in girls before puberty. It is described as complete or incomplete merging of the labial minora 1. Close clinical examination of genital area by expert is paramount for making diagnosis. It's incidence is 2-5% in infants and young girls, and is also commonly seen in postmenopausal women 2,3. Labia minora adhesion in the adolescent age group is a very uncommon due to plenty of estrogen and the cause is mostly unknown in this age group (4,12). An accepted theory says that adhesion may occur when the susceptible and non-estrogenized epithelium develops inflammation due to the contact with some local irritants in form of urine, faeces and poor local hygiene (3,4,5). If patient is symptomatic treatment is mandatory. The first-line therapy is in the form of topical estrogen or an alternative steroid ointment, which relieves symptoms in most of the cases (6,11). Aggressive treatments including surgical release is done only in specific cases (3,4,9).

Here we provide a case of complete labial adhesion causing bladder outlet obstruction with failed catheterization with normal introital opening in adolescent girl who was managed surgically.

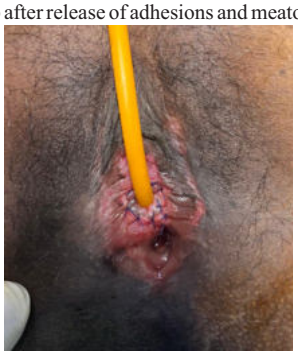
CASE STUDY

A 17-year-old girl came to our clinic with history of dull aching pain abdomen, burning micturition, poor urinary stream since two years. She reported difficulty in passing urine and associated abdominal distension since last 10-12 hours. She had no history of any surgery and had no significant past medical history. No history of sexual abuse was reported in the past. She had a normal menstrual history with menarche at 9 years. She exhibited normal secondary sexual characteristics. Both general and systemic assessments were normal. On further examination of abdomen, it was soft and bladder was palpable. On genital inspection, labia majora appeared normal and labia minora had complete dense adhesion from the clitoris to the anterior vestibule with pin hole opening of meatus causing bladder outlet obstruction with completely normal introital opening (figure-1). There were no signs of any local inflammation or any other chronic skin conditions. Ultrasound abdomen and pelvis was done which showed cystitic changes with few mobile sediments in bladder with post void residual urine (PVRU) of 350/200 ml with normal uterus and ovaries. Laboratory investigations including urine tests were normal. Catheterization with 5 and 6 Fr infant feeding tube was tried but it failed (figure-2). After discussing all available management options and in view of urinary retention with failed catheterization, decision of surgical release of adhesion was taken. Informed consent was taken. The patient underwent labial adhesions release with meatoplasty with urethro-cystoscopy under spinal anesthesia (figure-3).

Figure 1: Pin hole opening of meatus due to labial adhesions with normal introital opening

Figure 2: Guidewire (0.035") passed through meatus with difficulty

Figure 3: Intra-op after release of adhesions and meatoplasty



The labial adhesion involving meatus was completely separated using sharp dissection. Urethro-cystoscopy showed presence of grade 2

bladder diverticulae with normal caliber urethra. Vaginoscopy was normal. Urethral meatus was reconstructed and topical application of prednisolone and estrogen cream was advised for 3 weeks post surgery. Patient was discharged 3rd day following surgery after removal of per urethral catheter. Follow up was uneventful and she had no urinary complaints and her labium was fully open at the postoperative 2 weeks and at 4th month.

DISCUSSION

Labial adhesion is uncommonly seen in reproductive age women and it's cause is mostly not understood. Labial adhesions are usually found secondary to vaginal surgery causing local trauma, herpes simplex, skin conditions, vaginitis and vaginal tear following childbirth. Common age for labial adhesions is infancy and upto 5 years of age due to low levels of estrogen (8). Our patient had history of regular menses with fully developed secondary sexual character so low estrogen status was excluded as a cause of her labial adhesions. This was a neglected case, who presented with severe complication which was either due to ignorance of parents or by patient herself due to social anxiety. Mostly patients with labial adhesions are asymptomatic and are referred due to parental anxiety. The medical management for these girls consists of applying topical estrogen directly over minora. Another conservative option is topical steroids cream (5,6,10). Commonly symptomatic patients presents with vaginal irritation, dysuria or dribbling. With severe symptoms patients reports recurrent infections of urinary tract or retention of urine, as seen in our patient. Our case is different from other case reports as she doesn't have any history of surgery or sexual abuse, local trauma due to any cause, chronic inflammatory condition effecting genitals. We decided surgical intervention without conservative management as she had urinary retention with failed catheterization. 14-20% of patients who had undergone surgery have recurrent adhesions, so it is essential to communicate the importance of using topical estrogen in these set of patients.

CONCLUSION

It is an atypical case of bladder outlet obstruction in an adolescent female due to labia minora adhesion with normal introital opening, requiring surgical intervention. These adhesions can be treated medically or surgically nevertheless treatment is individualised in each case ranging from medical treatment to surgery. Recurrences may occur after any mode of treatment which has to be explained before management. The genital examination in female patients with lower urinary tract symptoms is crucial for identifying these conditions that may sometimes go unnoticed. Hence counselling of parents/relatives need to be done.

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