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CLINICAL VIGNETTE

Urethral Prolapse: Report of a Case

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Introduction

The patient is an 80-year-old female who was recently discharged from the hospital after evaluation for a transient ischemic attack. During her hospital stay, treatment had been initiated with aspirin 81 mg and clopidogrel 75 mg. A Foley catheter was placed because of difficulty urinating. She described the catheter as being very uncomfortable and it was removed prior to her discharge. At home, she noted burning on urination, difficulty urinating and intermittent, unexpected incontinence. She called her hospitalist to report vaginal spotting and was advised to see her internist for evaluation of post-menopausal bleeding.

Her past medical history was remarkable for high blood pressure and high cholesterol; she had a hysterectomy several years previously. She was also taking multiple vitamin supplements.

In the office, the patient was appropriately worried about her vaginal bleeding but otherwise was in no distress. She denied fevers, chills and abdominal or flank pain. She had no urinary symptoms prior to her hospital stay and no previous vaginal bleeding. Her vital signs revealed a blood pressure of 122/76 mmHg, a pulse of 76/min, and a temperature of 98.2 degrees F. Her cardiopulmonary and abdominal examinations were unremarkable. Initial perineal inspection revealed an ecchymotic, slightly hemorrhagic, doughnut-shaped mass. The first impression was that the patient had developed a cervical prolapse with subsequent traumatic injury of the cervix. Bimanual examination, however, revealed that the mass actually involved the urethra. The cervix indeed was absent, having been removed at the time of her hysterectomy. The patient was emergently referred for urologic evaluation. A diagnosis of urethral prolapse was made. She was initially managed with a Foley catheter, and estradiol vaginal cream was prescribed. She underwent outpatient debridement of devitalized urethral tissue and urethroplasty. She has not had a recurrence of the prolapse.

Urethral prolapse is an infrequent, benign condition of premenarchal girls and postmenopausal women. It does not occur in males. This disorder was first described in 1732 by Solingen.^{1,2}

Approximately 80% of cases of urethral prolapse are in the pediatric population; the incidence is 1:3000 in this age group. It is most common between the ages of 6 months and 8 years. African American girls have the highest risk, accounting for more than 90% of cases. In the postmenopausal group, white women are most commonly afflicted¹⁻⁵, approximately 86%.

This condition occurs when the distal urethral mucosa completely everts through the external urethral meatus and forms a circular mass around the opening of the urethra.^{1,2}

The most common symptom for the pediatric patient is vaginal spotting. Other symptoms include dysuria, frequency, urgency and difficulty voiding. It is important for the pediatrician to differentiate among other causes of pediatric vaginal bleeding, including "foreign bodies, urologic conditions, and trauma, as well as endocrine disorders, bleeding

disorders, dermatologic conditions, vaginal masses, tumors, and other more rare conditions. Sexual abuse should be considered in all children with genital complaints." 1,3,6,7

Women in the menopause may also present with symptoms of spotting, pain, dysuria, urgency or frequency.^{2,4}

The diagnosis of urethral prolapse is made on physical examination. The urethra appears as a rounded, reddish purple, hemorrhagic, doughnut-shaped mass on the anterior vaginal wall. It may be very tender, ulcerated or strangulated. Strangulation of urethral prolapse is more common in the postmenopausal age group. "The differential diagnosis of urethral prolapse includes prolapse of the bladder, prolapse of a urethral polyp, ureterocele, ectopic ureter, urethral cysts, hydrometrocolpos, condyloma acuminata, periurethral abscess, and sarcoma botryoides."⁶ One of these lesions may present as a vulvar mass but it would not surround the entire urethral opening. The lesion of urethral prolapse is completely symmetrical, with the urethral opening exactly in the middle.¹⁻⁵

The definitive cause of urethral prolapse is uncertain. "Multiple etiologies have been proposed including increased urethral mobility, mucosal redundancy, increased intra-abdominal pressure, and poor attachment between the muscular layers of the urethra."³ Other contributing factors for the postmenopausal woman might include estrogen deficiency, perineal trauma (childbirth), neuromuscular disorders, and poor nutrition and hygiene.^{2,4}

The treatment of urethral prolapse has been both medical and surgical, with a controversy remaining as to which is optimal. Non-operative treatments include topical estrogen cream, topical steroid cream, oral and topical antibiotics, herbal remedies and sitz baths. Surgical intervention would be indicated for more severe cases, such as those with significant bleeding, thrombosis or gangrenous changes of the mucosa; if there is difficulty voiding or urinary obstruction; if a patient cannot use estrogen (e.g. a woman with breast cancer or with a history of a blood clot); if a patient cannot undergo anesthesia; if conservative management fails to correct the prolapse; or if the prolapse reoccurs. Medical management is not always an effective treatment for correcting urethral prolapse and may have a recurrence rate of 67%. Surgery has a higher cure rate and relieves symptoms quickly.^{1,3-6, 8}

Complications of surgical treatment include urethral stenosis, urinary incontinence, acute urinary retention, vaginal bleeding, bleeding from the suture line and recurrent prolapse.²

Conclusion

Urethral prolapse is an uncommon condition which occurs only in women. On physical examination the urethra will appear as a completely circular, reddish doughnut-shaped mass. The clinician must be able to recognize this characteristic appearance; prompt referral to a urologist for further evaluation and treatment is in order.

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