Strangulated Urethral Prolapse in Oriental Girls: A Rare Case Report and Literature Review

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Urethral prolapse in girls is an uncommon condition usually presenting with edematous, friable rosette of bright red or cyanotic tissue and mainly involves the distal urethra. It has been recognized as a disease of premenarcheal black girls and post-menopausal white women. The etiology is not completely understood. We report here a rare case of urethral prolapse with gangrenous change in a 7-year-old oriental girl.

Key word: urethral prolapse

Case Report

Introduction

Urethral prolapse is a rare condition with an estimated incidence of one in 3000.1 It usually presents with edematous, friable rosette of bright red or cyanotic tissue and mainly involves the distal urethra. The underlying cause of this condition remains uncertain. It has been recognized as a disease of premenarcheal black girls and post-menopausal white women in the literature.2,3,4 Herein, we present a rare case of urethral prolapse with gangrenous change.

A 7-year-old Taiwanese girl was referred from a gynecologist due to perineal pain with a vulvar mass and blood spotting on her underwear. She was quite healthy until she suffered from cough one month before. Besides, no fever, dysuria, frequency, other unusual vaginal bleeding, trauma, gynecologic disorders, nor urinary tract infection was noted. She denied having inserted any foreign body into her vagina.

On physical examination, the vulva appears normal except for a clearly dark-red, doughnut-shaped mass visible at the introitus with serosanguinous discharge (Fig. 1A). After retraction of the labia majora and minora, the mass was found to surround the urethral opening and obscure the hymen. Medical history including birth history was not contributory. Results of medical laboratory studies were
Anatomic dissection by Lowe et al. demonstrated that urethral prolapse may result from poor adherence between smooth muscle layers of the urethra in association with episodic increases in intra-abdominal pressure. There is a consensus that increased intra-abdominal pressure is a key factor contributing to the condition. In this case, the young girl had severe, continuous cough persisting for one month. We believed that this was the predisposing factor resulting in the prolapse of urethra in our patient, although chronic cough is an unlikely cause of urethral prolapse in young females.

Literature review showed no report on the incidence of urethral prolapse in oriental girls. Prolapse of urethral mucosa occurs most often in pre-pubertal black girls and in postmenopausal white women. We think that ethnical differences may also play an important role.

The therapy of urethral prolapse includes conservative and surgical treatment. Conservative therapy aims at reducing mucosal edema, improving local hygiene and countering...
lack of estrogen by using a combination of two or more of the following measures: sitz baths, topical estrogen cream, antibacterial wash/soap and topical antibiotics. Surgical management of urethral prolapse involves excision of the prolapsed mucosa circumferentially. Girls with mild symptoms can be managed conservatively. However, in patients presenting with more severe symptoms or evidence of vascular compromise, surgery is the treatment of choice. The potential complication of surgical treatment is urethral stenosis.\(^1\) In our case, surgical intervention was suitable due to urethral mucosa gangrenous change. Satisfactory postoperative recovery was also noted.

**Conclusions**

We report a rare case of a young oriental girl presenting with strangulated urethral prolapse. Since the etiology is still not well-defined, further research is warranted to elucidae the underlying mechanism. Moreover, surgical intervention is indicated if conservative treatment fails in achieving satisfactory symptom-control or when tissue gangrene develops.

**References**