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Urethral Mucosa Prolapse in a post-partum patient.

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A Case Report

Urethral Mucosa Prolapse in a post-partum patient.

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Abstract:

A 23 year old Ugandan, Black, Mukiga, mother of two presented to us one year after delivery with severe lower abdominal pain, failure to pass urine, slight vaginal bleeding and a mass protruding from her vagina. Vaginal examination revealed she had a prolapsed urethral mucosa which was undergoing ischemic necrosis. Her condition was successfully treated by surgical excision of the prolapsed mucosa. The patient had no urinary, genital or other symptoms at 6 weeks, 6 months and at one and half years follow up.

Key Words: Urethral, Mucosa, Prolapse, post-partum patient.

Introduction:

Urethral prolapse, a condition in which the urethral mucosa protrudes through the external urethral meatus is a very rare condition in women of reproductive age. It is reported to occur mostly in prepubertal girls/children (80%) mostly of African descent (90%), and in white postmenopausal females (20%)^[1]. The incidence in the prepubertal children has been estimated to be approximately 1:3000^[2]. In Africa most of the cases reported have been from the West African region. We present a case of UP in a reproductive age African woman in Kabale district, South Western Uganda. Literature review suggest this could easily be the first reported case in the East African region and will help increase awareness of practitioners in the region about urethral prolapse as a potential differential diagnosis for women presenting with symptoms of vaginal bleeding, urinary retention, and a protruding mass in the vagina. .

Case report:

Ms. T.K. is a 23 year old house wife who presented to the emergency ward on 15/09/2017 at about 5.00pm with complaints of severe lower abdominal pain, failure to pass urine, slight vaginal bleeding and a mass protruding from her vagina. This was one year and one month after a normal spontaneous vaginal delivery. Prior to this episode of bleeding she had not yet resumed her menstrual periods. The pain started suddenly while she was out in her garden digging. There was no associated history of constipation. T.K. is a parous lady who has had two uneventful pregnancies; the first one in 2014 and the second in 2016. Both pregnancies ended in normal spontaneous vaginal delivery; one in hospital (2014) the other by the road side on her way to hospital (August 2016). This is her third time to have had a mass protruding from her vagina. The first time was during childhood but she is unable to tell exactly at what age and what was done. The second time was at the age of 20 years in 2014, two weeks after delivering her first child when she reports to have developed a symptom-free mass protruding from her vagina. According to her the mass was repaired. From retrieved medical records it was revealed that passage of a urethral catheter had resulted in complete reduction of the hernia. The patient also had 5 days of supply of antibiotic treatment before discharge. She did not give any history of vaginal injury or surgery.

Physical examination revealed a 62kg, well-nourished lady who was in very severe pain. She was afebrile (T-36.), normotensive (BP 120/70 mmHg) and clinically not anemic (Hemoglobin (Hb) level was 15.6g/dl). The main findings were in the lower abdominal and vaginal examinations which revealed a full bladder, a foul smell from her genital area, approximately 2cm. long dark edematous, membranous mass protruding from the vulva. It was difficult to identify the external urethral meatus. However, careful passage of a Foley's urethral catheter into the bladder through a dimple in the center of the protruding mass was possible. Passage of the Foley's catheter did not, however, result in any significant retraction (reduction) of the protruding mass back towards the bladder (it remained protruding around the catheter). This was a clear indication that the protruding mass was from the urethra. About 600 milliliters of clear urine was drained; a sample of the urine was sent to the laboratory for urinalysis. The rest of the external genital organs (including the labia majora, labia minora, the vestibule and clitoris) were all normal looking. Further gynecological examination revealed normal vagina, cervix, uterus, and adnexa.

A diagnosis of herniation (prolapse) of the urethral membrane undergoing ischemic necrosis was made. The patient was kept on continuous bladder drainage and started on antibiotics (Ceftriaxone; 2g

intravenous and then 1g daily, Metronidazole (flagyl) 500mg/100ml intravenous Infusion) and analgesics (75mg Diclofenac IM) while awaiting surgery. Surgical treatment was preferred because the tissues showed signs of necrosis, and because earlier medical treatment had failed as the patient had now returned with severe recurrence of the condition.

A Complete Blood Count (CBC) and Urinalysis results were reported as normal. Other laboratory tests carried out were; Serum, hCGH, Luteinizing Hormone (LH), Follicle stimulating hormone (FSH), Prolactin (PRL), Progesterone, and Estradiol all of which were normal.

Surgical treatment:

This was done under spinal anesthesia. The patient was placed in lithotomy position. The vulva and perineum was cleaned with antiseptic solution and the patient was draped. Starting with the right upper quadrant, a holding 2/0 vicryl absorbable suture was passed through the prolapsed urethral membrane and minimum traction applied which revealed normal proximal urethral mucosa. The necrosing urethral membrane was excised and the remaining normal urethral mucosa sutured to the introital mucosa using interrupted absorbable sutures. A similar procedure was repeated in turns on the lower right, lower left and upper left quadrants, thus excising the whole prolapsed necrotic urethral membrane. Traction on the holding sutures allowed good visualization of the proximal mucosa, and prevented its retraction towards the bladder upon excision. The catheter was left in situ for 5 days to allow for healing.

There was marked post-operative improvement. Swelling of the peri-urethral mucosa reduced and no prolapse of the urethral mucosa could be seen any longer. The urinary catheter was removed on the 6th postoperative day. The patient was able to pass urine normally and was discharged on the 8th postoperative day. Follow up visits of the patient after 1 week, 2 weeks, one month, 2 months, and 6 months, showed that the patient had fully recovered. She had no urinary or other symptoms and no prolapse or swelling of the peri-urethral tissue 6 months post operatively. On a recent follow up visit made on 12th February 2019, almost one year and five months postoperatively, she was found to be enjoying good health with no urinary or genital symptoms and signs.

Discussion:

Prolapse of the urethral mucosa is a rare condition in which the mucosa of the urethral membrane separates from its sub mucus smooth muscle attachment and herniates through the external urethral

meatus. Strangulation of the prolapsed tissue by the external urethral meatus, leads to congestion, edema and swelling. Urethral Prolapse is more commonly seen in prepubertal girls (below age 9 years) and postmenopausal women than it is among reproductive age women (10 to 49 years). The reported incidence is 1 in 3000 among prepubertal girls^[3]. As happened in our patient, girls/women with urethral prolapse may present with genital bleeding, genital swelling and urinary symptoms such as urinary retention and painful micturition.

The cause of urethral mucosa prolapse is not known. Based on the common occurrence of the condition in the prepubertal and postmenopausal ages, estrogen deficiency is suspected to be an underlying factor^[4]. Estrogen deficiency is thought to lead to hypermobility of the urethra and vaginal/urethral mucosal atrophy. In addition medical treatment with topical estrogen cream has commonly provided relief of the condition. However this cannot explain the cause of UP in our patient as she was of reproductive age (23 years), had a normal hormonal profile, and no evidence of vaginal atrophy. That the onset of symptoms started when the patient was digging, a strenuous activity associated with episodic increases in intra-abdominal pressure, could support the popular theory that the problem arises as a consequence of poor attachments between the two layers of smooth muscle surrounding the urethra, combined with episodic increases in intra-abdominal pressure^[1,5,6,7].

There is divided opinion between management of Urethral Prolapse; some surgeons preferring conservative/medical management, while others prefer, surgical reduction with or without surgical excision of the prolapsed urethral mucosa^[1,8,9,10]. Conservative/medical management involves, improved local hygiene, reducing tissue edema and congestion using the Sitz baths, antiseptic wash, topical application of estrogen cream, and topical antibiotic therapy, is commonly used for patients with mild symptoms. Surgical reduction of the prolapsed mucosa under general anesthesia is recommended for patients with more severe symptomatic prolapse. Some surgeons recommend surgical management involving placement of Foley's catheter plus excision of the prolapsed membrane, for patients with severe symptoms including onset of ischemic changes, other surgeons say surgical treatment is almost never required except for the rare patients with frequent recurrence of the prolapse or where a severe prolapse is not responding at all to reduction under General Anesthesia^[11].

We chose to manage our patient's condition by surgical excision of the prolapsed mucus membrane because she was in severe pain, the prolapsed tissue was undergoing ischemic necrosis, and had not been reduced following insertion of the indwelling Foley's catheter. Moreover, on at least one documented previous occasion she had had medical treatment which had not been successful as evidenced by her current return with recurrence of the condition. This approach is supported by some literatures that favor surgical excision as the most definitive treatment of prolapsed urethral mucus membrane especially if there is tenderness or necrosis complicating the condition^[4,6,8,6,12].

Those preferring medical treatment as opposed to surgical treatment present the need to avoid complications associated with surgical management including, infection, urethral stenosis, postoperative urinary retention, and urinary incontinence, which fortunately did not complicate our procedure.

Patient Consent:

Consent to Publish the case report was not obtained. This report does not contain any personal information that could lead to the identification of the patient.

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Authorship:

All Authors attest that they meet the current ICMJE criteria for Authorship

Conflict of Interest:

The following Author has no financial disclosures: (T.G.)

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Highlights:

A rare case of Urethral membrane prolapse in a postpartum female, is presented. The condition in which the urethral mucosa protrudes through the external urethral meatus is a very rare condition in women of reproductive age. It is reported to occur mostly in prepubertal girls/children (80%) mostly of African descent (90%), and in white postmenopausal females (20%)^[1]

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