Self-inflicted genital ulcer: An intriguing case report

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Abstract

Self inflicted genital ulcer due to penile constriction injury is a rare clinical entity, which requires urgent management to prevent its devastating outcomes such as penile gangrene and auto amputation. Although this is common, definitely, it is of interest because of the genital involvement. Here, we present a case report on an unusual case of rubber band induced penile constriction injury.

Key words: Penile constriction injury, penile gangrene, self-inflicted genital ulcer

Introduction

Tourniquet syndrome is a rare condition, characterized by pain, swelling, urethral fistula, pseudoainhum, gangrene, and amputation due to constriction of genitalia by a foreign body.[1] It is commonly seen in the pediatric age group (hair, thread, and rubber band) and in young adults (metallic rings, nuts, vacuum erection devices) and in geriatric patients (metallic rings, rubber bands). Common causes for penile foreign body usage are autoerection and psychiatric disorders such as mental retardation and dementia. Other motives are pranks, sexual intercourse, and treatments for incontinence.

Penile injury cases usually present late because most of the patients feel guilty and delay in seeking help, so a very careful medical history and a thorough physical examination are essential. Symptoms may range from a genital ulcer, penile swelling, pain, gangrene, lower abdominal pain, hematuria, pyuria or urinary retention, and autoamputation.[2] However, it should be differentiated from other causes of balanoposthitis like Crohn's disease, streptococcal dermatitis, staphylococcal cellulitis, gonorrhea, syphilis, chancre with balanitis of follmann, mucous patch, mycoplasma, trichomonas vaginalis, lymphogranuloma venereum, nonsyphilitic spirochaetal ulcerative balanoposthitis, tinea, amoebiasis, myiasis, scabies, eccrine syringofibroadenoma, erythroplasia of queyrat, Kaposi sarcoma, chronic lymphatic leukemia, and fixed drug eruptions.[1]

Definitive management includes early recognition and removal of the foreign body to prevent irreversible damage. Here, we present a case of a rubber band-induced penile constriction injury resulting in a self-inflicted genital ulcer in a 43-year-old male patient with Grade 2 injury according to the Bashir and El-Barbary grading system.

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Case Report

A 43-year-old male presented to us with an ulcer over the dorsum of the distal 1/3rd of the shaft of the penis, which was associated with redness, swelling, progressive pain, and dysuria for the past 10 days. Examination revealed that the glans penis was hyperpigmented and edematous. A single 3 cm × 1.5 cm irregularly shaped ulcer with a sloping edge and well-defined margins were present at 9 to 3 o'clock position over the dorsum of the distal 1/3rd of the shaft of the penis. There was no granulation tissue and discharge. A constriction band was encircling around the lower 1/3rd of the shaft of the penis. Two rubber bands were found over the constriction band. The surrounding skin was warm and tender on palpation, with no bleeding on the touch [Figures 1 and 2].

The patient was then taken up for emergency surgery. Rubber bands were removed along with the necrosed tissue relieving the constriction band [Figures 3-5]. Hemostasis was achieved and the dressing was done. Afterward, a detailed clinical psychological evaluation of the patient was done with confidentiality; he was a migrant worker in the construction industry in Middle-East countries during the prepandemic years, separated from his wife, and stayed in his sister's house in the past 2 years. He denied the extramarital contact, but he had the urge to masturbate often and for which he used objects such as metallic and plastic rings, rubber bands, as a sexual fantasy, unable to control his impulse. Except for high sexual curiosity and compulsive

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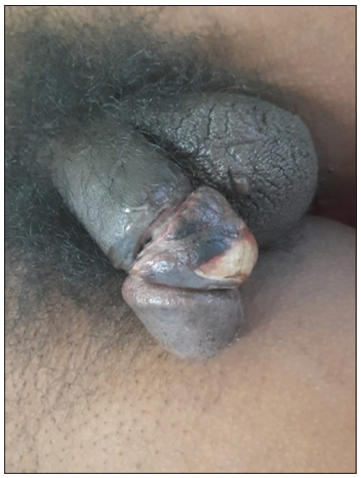

Figure 1: Penile ulcer with constriction ring

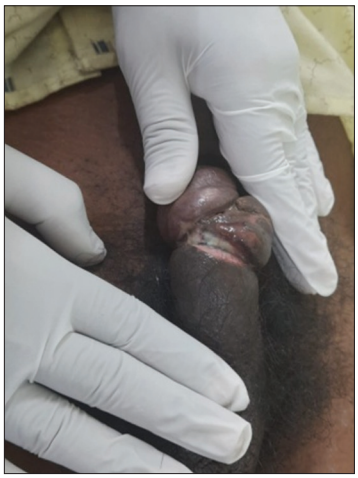

Figure 2: Constriction ring with rubber bands

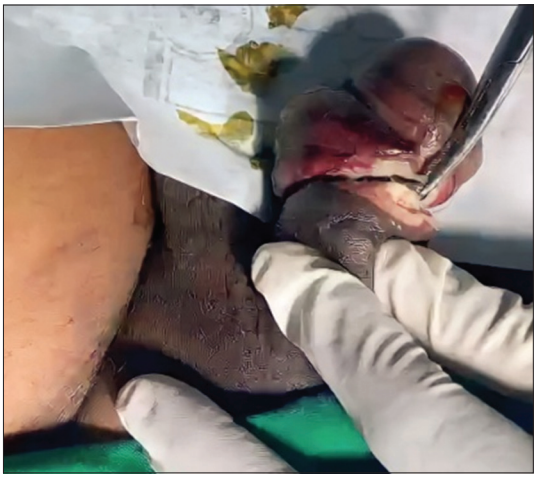

Figure 3: Peroperative removal of rubber bands

masturbation, he had no other psychiatric illness and his intelligence quotient was average with no other comorbidities. HIV, serologic test for syphilis, and other serological markers were negative and other routine investigations were within normal limits.

Discussion

The tourniquet syndrome is a rare clinical entity, which requires urgent management to prevent its devastating outcomes like penile gangrene and autoamputation. Penile strangulation was first reported by Gauthier in 1755.[3] Substances causing strangulation can be classified into hard and soft substances. The hard substances are metallic rings and tubes, plastic bottles, and rings. The soft substances include rubber bands, strings, threads, and vinyl products. In African countries, hair, thin threads, or rubber bands are used as penile tourniquets to enhance sexual function in adulthood. Geriatric patients apply rubber bands for urinary incontinence. The common motives to use hard substances are for pranks, followed by sexual intercourses, treatments of incontinence and phimosis, and soft substances for treatments of phimosis, followed by sexual intercourses, pranks, and prevention of tumors.[4]

Complications depend on the type of the constricting material, site of application, width, tightness of constricting object, incarceration time, and personal hygiene. Seeking late medical care is the single most important cause of complications and morbidity in these cases. Patients usually present late due to taboos. As per various literature reviews the acute complications are erosion of skin, corpus with urethral transection or gangrene of distal tip, auto amputation, and chronic complications are penile lymphedema, chronic fibrosed band causing difficulty in erection and intercourse, urethral strictures and urethral cutaneous fistulas.[5-8]

Various grading systems were used for describing the severity of penile injuries. Bashir and El-Barbary had described four grades: Grade 0: constriction of skin without urethral injury, Grade 1: partial division of corpus spongiosum with urethrocutaneous fistula, Grade 2: complete division of corpus spongiosum and constriction of corpus cavernosum, Grade 3: gangrene, necrosis, and amputation of the glans.[6] Our case can be classified as a Grade 2 injury.Bhat *et al*.,[7] grading scales for penile injuries; Grade I: Edema of the distal penis. No evidence of skin ulceration or urethral injury, Grade II: Distal edema, skin and urethral trauma, corpus spongiosum compression, and decreased penile sensation, Grade III: Skin and urethral trauma, no distal sensation, Grade IV: Separation of corpus spongiosum, urethral fistula, corpus cavernosum compression, no distal sensation, Grade V: Gangrene, necrosis, or complete amputation of the distal penis. Harouchi *et al.* described four grades of injury, varying from superficial skin lesion only (Grade I) to the loss of the glans (Grade IV).[8]

Early recognition and removal of the foreign body to prevent irreversible damage and necrosis of the penis is the mainstay of treatment. When diagnosed in later stages, the dorsal neurovascular bundle may be transected, leading to the loss of sensation over the distal part of the penis with a high risk of partial or total amputation of the penis distal to the tourniquet. Magnetic resonance imaging of the penis and the genital area may be useful to assess the extent of the injury.[9] The distal blood flow can be checked by a Doppler flow meter or Woods lamp examination after intravenous fluorescein. The treatment of choice in a particular patient should be tailored according to the characteristics of the constriction devices and the grade of trauma. Care should be taken to avoid the excision of healthy tissue. The present case had a Grade 2 injury and

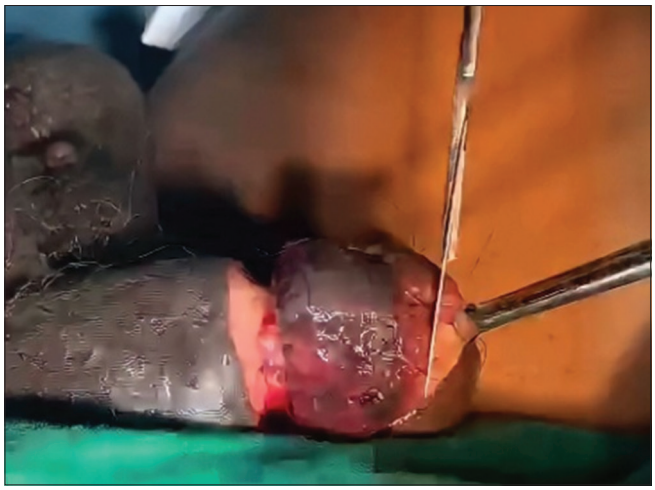

Figure 4: Debridement of necrotic tissues

Figure 5: Removed rubber bands

needed only the removal of constricting devices, removal of necrosed tissue, and daily cleaning and dressing, without any further complication.

Bhat *et al*. mentioned that most of the reported patients were of normal intelligence.[7] The patient may also have features of somatization disorder similar to Munchausen syndrome or character perversion. Penile strangulation has also been reported in a patient with bipolar disorder. Our patient was of normal intelligence, but he additionally had features of compulsive masturbation. Hence, psychological evaluation and management may be beneficial for such patients to avoid further episodes. Patients often attend the dermatology clinic to seek medical opinion about any sort of genital problem. Hence, dermatologists may encounter penile constriction or strangulation in their clinical practice as in the present case. Therefore, they play a role in the prompt recognition of a case of penile strangulation and by timely appropriate treatment to prevent further ischemic damage.

Conclusion

Penile constriction/strangulation is a distinctive self-inflicted injury and may lead to severe mechanical and vascular complications. Early diagnosis and rapid intervention is of utmost importance. We emphasize the detailed clinical examination, early intervention, and behavioral therapy to ensure the genital health.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given his consent for his images and other clinical information to be reported in the journal. The patient understands that his name and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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