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CASE REPORT

Gangrene and Partial Auto-Amputation of the Penis in a Case of Priapism

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Abstract

Background: Penile Gangrene is rare, usually associated with extensive pelvic trauma, mechanical constriction, infection due to urinary extravasation and uncontrollable systemic infection. The objective of this case report is to stress upon the need for early detumescence by means of aspiration of accumulated blood, injection of phenylephrine, proper shunting of blood and adequate compression dressing with necessary antibiotic cover. **Case Presentation:** We present a case of 33-year-old married man who was hospitalized under general surgery department for left AK amputation because of lower limb gangrene. On 3rd postop day, patient was noted to have a turgid penis and unable to urinate. Urology consultation was sought after 3 days for suspected priapism. We immediately shifted the patient to OT and the detumescence of penis was achieved by means of aspiration and injection of phenylephrine followed by Winter's shunting. The penis was noted to be flaccid with normal hue and patient was discharged. After 1 month, he returned to the hospital with extensive gangrene of the entire distal half of the penis with features of auto amputation of distal portion of penis. **Conclusions:** This report is aimed to prevent ischaemic complications of priapism like penile gangrene. Various factors like time of intervention, urethral catheter, tight pressure bandage dressing around the penis and local infection alone or in combination, have been implicated in causing penile gangrene in cases of priapism. Penile detumescence should be achieved on an emergency basis to prevent its ischaemic complications.

Keywords: Penile gangrene, detumescence of penis, Winter's shunt

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List of Abbreviations

AK: Above Knee

DVT: Deep Vein Thrombosis

Background

Penile Gangrene is not very common, usually associated with extensive pelvic trauma, mechanical constriction, infection due to urinary extravasation and uncontrollable systemic infection [1]. In our case, penile gangrene occurred despite treatment for priapism (idiopathic/Ischaemic). The objective of this case report is to emphasize the need for early detumescence by means of aspiration of accumulated blood, injection of phenylephrine, proper shunting of blood and adequate compression dressing with necessary antibiotic cover.

Case Details

A 33-year-old married man was hospitalized under general surgery department for left AK amputation because of gangrene. Doppler showed left lower limb DVT and absent arterial flow in posterior tibial and dorsalis pedis arteries. Post operatively patient developed right lower limb edema with persistent left thigh edema, and after Doppler confirmation, he was started on heparin infusion in view of B/L lower limb DVT. On 3rd postop day, patient was noted to have a turgid penis and unable to urinate. He was catheterised. Urology consultation was sought after 3 days for suspected priapism. Complete physical examination revealed no abnormalities except an erect, tender and oedematous penis with bluish discolouration. Routine laboratory analyses were normal. Iliac vessel Doppler was done in which internal iliac vein couldn't be commented upon, but rest of the vessels were normal. We immediately shifted the patient to OT and the detumescence of penis was achieved by means of aspiration and injection of phenylephrine followed by Winter's shunting. Gentle compression dressing was done and adequate antibiotic cover was given. The patient was shifted back to general surgery department, after brief observation, with only minimal erection. Two days postoperatively, the compression dressing was removed, penis was noted to be flaccid with normal hue and patient was discharged. After 1 month, he returned to the hospital with extensive gangrene of the entire distal half of the penis with features of auto amputation of distal portion of penis. Debridement was done under local anaesthesia and we could insert 14FR Foleys catheter through the proximal part of penile stump. The postoperative recovery was uneventful and he was discharged next day. As the patient is improving with spontaneous epithelisation by nature, he is being followed up at regular intervals.

Figure 1. Penile gangrene with partial amputation (dorsal view)

Figure 2. Penile gangrene (ventral view)

Figure 3. Gangrenous part debrided.

Figure 4. Post debridement

Discussion

Priapism is an infrequently encountered disease with most cases being idiopathic in origin. Priapism is described as involuntary, painful, and prolonged erection of penis persisting for more than four hours not related to sexual stimulation and unrelieved by ejaculation. Ischemic priapism accounts for >95% of cases of priapism [2]. Our patient had neither tight compressive dressing nor local infection as a causative factor for the gangrene. However, the occurrence of peripheral limb gangrene led to further investigations and Doppler study showed arterial and venous thrombosis at multiple levels of bilateral lower limbs. The treatment involves resuscitation of the patient and decompression of the cavernosal bodies to achieve penile detumescence. Various

factors like time of intervention, urethral catheter, tight pressure bandage dressing around the penis and local infection alone or in combination, have been implicated in causing penile gangrene in cases of priapism [3].

Conclusions

This report is aimed to prevent ischaemic complications of priapism like penile gangrene. Penile detumescence should be achieved on an emergency basis to prevent its ischaemic complications [4].

Conflicts of interest

The authors declares that they do not have conflict of interest.

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