

# Gangrene of the Penis due to Strangulation by a Metallic Ring: A Case Report

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## Abstract

Gangrene of the penis by strangulation with a metallic ring is a rare urologic emergency where preservation of urological function is the main priority. We present a case of a psychotic patient referred to the emergency department. We describe the medical and surgical management of this case.

**Keywords:** Gangrene; Penis; Strangulation; Metallic Ring; Schizophrenia

## Introduction

Strangulation of the penis by a metallic object is a rare injury requiring urgent treatment due to the poor functional prognosis [1]. Several cases have been reported worldwide [2]. Items used most often are weddings rings, nuts or steel sprockets, plastic bottles for the purpose of maintaining an erection or improving sexual performance or sometimes as a result of psychiatric disorders [3]. The extraction of these objects is a major stress for the patient and a challenge for the practitioner [4]. We report a case of gangrene of the penis secondary to penile strangulation by a metal ring that required a surgical approach. We describe the processing performed and surgical results.

## Observation

Mr. HF, aged 37, followed two years for schizophrenia, was admitted to the hospital of MBour Senegal for gangrene and secondary penile strangulation by a metal ring (Figure 1). Clinical examination revealed a quiet patient with inconsistent reasoning who could not explain his act. After a psychiatric evaluation, the patient was immediately taken to the operating room. General anesthetic exploration revealed penile gangrene caused by a metal ring at the root of the penis. There was no retention of urine or urethral fistula. He received debridement followed by extraction of the metal ring with the introduction of a probe Foley CH 16 (Figures 2 and 3). The patient was put on low molecular weight heparin and antibiotics. The outcome was favorable (Figure 4). A psychiatric consultation was made and as a result, the patient is now receiving adequate psychiatric treatment. Reconstruction surgery was offered to the patient at a later date.



Figure 1: Strangulation of the penile with a metallic ring



Figure 2: metallic ring



Figure 3: The aspect of the penile after unbridling and extraction metallic ring



Figure 4: The aspect of the yard to post-operative J21

Penile strangulation by a metal ring is a rare but serious trauma. It occurs usually in patients with psychiatric disorders with symptoms of self-aggression [1]. The reason for this voluntary gesture is either auto-mutilation or auto-eroticism or even the desire to improve sexual performance by creating sustainable penile rigidity [1,3,5]. The authors reported that several possible complications can occur including: urinary retention in 50% of cases, urethral fistula, priapism, distal hypoesthesia, ulceration and skin necrosis that may progress to gangrene or amputation of the penis. These complications depend on the duration and severity of compression [4]. For tight rings, ischemia and necrosis settled early [1].

Treatment should be pressing [6]. The first step is ablation of compression by metal hardware under anesthesia. The technique used depends on the hardness and the shape of the ring. In this case wire cutters were used. However, for heavy and/or larger metal objects that cannot be grasped by pliers hard rings, it is recommended to drain the stagnant blood in the penis by incision or puncture the glans followed by a compression coil of the penis by a silk thread on which the ring slips progressively [5-9]. Ischemic and necrotic wound edges were debrided and a careful examination of the urethra is carried out in search of a fistula.

The addressing the severity of the psychiatric disorder is essential in these patients, as post-operative care and prevention of further urological emergencies is dependent on continued mental stability of the patient.

## Conclusion

Gangrene of the penis due to strangulation by a metal ring is diagnosed, in generally, diagnosed in patients who are psychologically unbalanced. It is a rare and requires emergency surgical intervention and psychiatric treatment and follow-up.

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