Post-Operative Priapism: Often Overlooked after Spinal Anaesthesia in Orthopaedic Surgery

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ABSTRACT

Priapism is defined as an abnormal persistent erection of the penis or clitoris. It is unrelated to sexual stimulation and unrelieved by ejaculation. Overall incidence of priapism is 1.5 to 2.9 per 100,000 person-year. Case of priapism following orthopedic surgery is rare. Etiology of priapism following orthopedic surgery can be difficult to determine and many times may not be possible. This case represents the first report of priapism following an elective ORIF (open reduction and internal fixation) with MIPPO (minimally invasive percutaneous plate osteosynthesis) for both bone fracture in right lower leg performed under spinal anesthesia and will focus upon a review of the literature and potential etiologies of this rare complication. Priapism following elective orthopedic surgery is often overlooked. Diagnosis may be late which may require surgical intervention for priapism. This often adversely affects the quality of the sexual life of the patient.

INTRODUCTION

Priapism is defined as an abnormal persistent erection of the penis or clitoris. It is unrelated to sexual stimulation and unrelieved by ejaculation. Overall incidence of priapism is 1.5 to 2.9 per 100,000 person-year. Case of priapism following orthopedic surgery is rare. Etiology of priapism following orthopedic surgery can be difficult to determine and many times may not be possible.

This case represents the first report of priapism following an elective ORIF (open reduction and internal fixation) with MIPPO (minimally invasive percutaneous plate osteosynthesis) for both bone fracture in right lower leg performed under spinal anesthesia and will focus upon a review of the literature and potential etiologies of this rare complication. Priapism following elective orthopedic surgery is often overlooked. Diagnosis may be late which may require surgical intervention for priapism. This often adversely affects the quality of the sexual life of the patient.

CASE REPORT

A 21-year-old male presented with swelling and pain over his right lower leg after sustaining an injury while playing football. He was diagnosed right lower limb both bone fracture. The patient was indicated for ORIF with MIPPO under spinal anesthesia. The patient’s past medical history and urologic history were unremarkable. He doesn’t have any past surgical history. The patient admitted to social alcohol use but denied smoking or drug abuse. There was no past psychiatric history nor any history of sexual dysfunction.

On examination his general condition was fair. He does not have pallor, icterus, edema, cyanosis, clubbing, lymphadenopathy, and dehydration. His respiratory and cardiovascular system was normal. An airway examination does not reveal an anticipated difficult airway and the spine does not have any deformity. On local examination of the right lower limb, swelling and
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CASE REPORT

Priapism is defined as a persistent penile erection unaccompanied by desire or sexual excitement and/or arousal. It is well-known that priapism sustained for more than 4 hours may result in edema, increased risk of abrasion, tissue drying, and necrosis of the penis, with the prognosis, in general, depending on the type of priapism and the amount of time elapsed before the therapeutic intervention. This case represents the first report of priapism following an elective ORIF with MIPPO.

Priapism most often is reported with intracorporeal injections for erectile dysfunction or with Sickle Cell Disease. This patient had no hematological history. Pharmaceuticals and recreational drugs also have been implemented as potential etiologies of priapism. Thomas et al in 2003 gave a review of common medications that may contribute to priapism. Our patient’s list of medications does not have documented priapism as a potential side effect, and he denied any history of drug abuse in the past.

In 2004, Minardi presented two case reports of priapism. One patient presented with priapism due to cauda equina compression as a result of an L4-L5 herniated nucleus propulsus. Most orthopedic accounts of priapism are a result of similar conditions of the spine or spinal trauma. Moreover, traumatic spinal injuries with associated epidural hematomas may present with priapism and motsensory loss of the lower extremities. This patient had no history of spinal disease and did not experience any accompanied motsensory deficits.

In addition, there are potential vascular etiologies of priapism after elective orthopedic surgery. For example, perioperative intrapelvic thrombosis can lead to venous congestion distally, and rarely present as a case of priapism. It is rare etiology that should concern the orthopaedician as a potential life-threatening sequelae of a routine total hip replacement. Prolonged surgical time, venous compression from operative positioning, and venous stasis may be responsible. Fortunately for this patient, a pelvic thrombus was ruled out as the emergent pelvic CT scan failed to identify any sources of venous congestion.

To our knowledge, this is the first time that priapism has occurred following a routine, elective ORIF with MIPPO for both bone right lower limb fracture. There was one reported case following total hip replacement in orthopaedic surgery. No definitive etiology of this patient’s condition was ever identified.

Conflict of Interest: None.

Consent: Case Report Consent Form was signed by the patient and the original article is attached with the patient’s chart.

REFERENCES


