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Letter to the Editor

Idiopathic low flow priapism: a rare presentation

Sir,

A young male adult was presented with persistent penile erection since last 3-4 days.

There was no history of predisposing conditions like sickle cell disease, malignancy, drug ingestion, trauma etc. On Examination penis was erect, rigid and tender on palpation (Figure 1). Per abdomen and per-rectal examination were normal. All blood investigations were normal. Duplex USG suggests low flow priapism. Distal shunt was performed. Patient made an uneventful recovery.

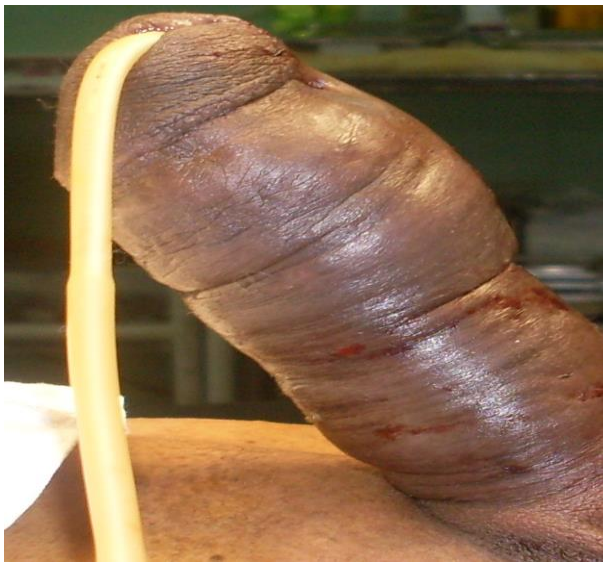

Figure 1: Erection of penis.

Pathologic, prolonged, persistent and often painful penile erection is known as priapism in absence of sexual stimulation. The term derived from Greek god priapus, according to mythology he was punished by other gods for attempting to rape a goddess. Priapism usually last more than 4 hours and predominantly affects corpora cavernosa. Bimodal peak in incidence at ages of 5-10 years and 20-50 years. Priapism is associated with hematologic diseases; approximately 23% of adults and 63% pediatrics cases are having priapism secondary to sickle cell disease.[1,2]

Other hematologic problem like leukemia, asplenism, fabry's disease is also found to be associated with this condition. In addition to blood Dyscrasias, intracavernosal injection of papaverine, drugs (alpha-blocker, anticoagulants etc.), malignant infiltration of cavernosa, spinal cord injury, trauma, infection are causes of secondary priapism. Classification includes either Ischemic or low flow due to veno-occlusion and non ischemic or high flow is due to unregulated arterial flow.

Ischemic or low flow priapism manifest as painful penile erection, cavernosa are rigid and tender. Blood gas analysis from the cavernosa shows hypoxia, hypercapnia and acidosis. High flow priapism is painless and corpora are semi- rigid, blood gases are same as arterial blood gases. Potential complication of this condition includes: thrombosis, gangrene, impotence and fibrosis. Priority in evaluation of priapism is to differentiate between high flow and low flow as low flow is a true medical emergency. History and physical examination including per abdomen and per rectal examination should be done appropriately to find the cause. Blood investigations

are ordered to exclude hematological problem, cavernous blood gases sample are sent to determine the type. Color duplex ultrasonography is reliable to distinguish between high flow and low flow priapism.[3] Evacuation of blood from the corpora and intracavernosal injection of alpha adrenergic agonist is the first line treatment for low flow priapism.[3] Low flow priapism lasting more than 4 hour required decompression of corpora.[3] Patients with sickle cell disease require hydration, O_2 inhalation, alkalinization, or even exchange transfusion. Low flow priapism of more than 72 hrs duration is unlikely to resolve without shunt surgery. Distal shunt is the most effective and first choice. Proximal shunt is warranted if distal fails. Initial management of high flow priapism is observation and may respond to cool bath or ice pack. Delayed presentations require selective arterial embolization of internal pudental artery either by autologous clot or ethanol. Recurrent attacks of priapism are observed in patients with sickle cell anemia. Most important aspect of management is prevention and acute attack should be treated as per guideline of low flow priapism.

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