

Spontaneous preputial cavity abscess : a rare case report

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Abstract

Spontaneous preputial cavity abscess is a rare presentation. Pus collects between the penile shaft and overlying skin without involving the penile muscles or urethra. The condition is acknowledged to be rare, so the importance of recognition and appropriate treatment is important. This is especially true for penile pathology where patients are often reluctant to disclose relevant signs and symptoms. We present a case of spontaneous preputial cavity abscess that was diagnosed and treated at our institution.

Keywords

Penis, abscess, spontaneous

Introduction

Preputial abscess is a rare condition seen most commonly in diabetic patients. It is characterized by a collection of pus in the preputial cavity. It presents with diffuse enlargement of the penis, pain along with systemic signs of inflammation. Diagnosis can be confidently done with ultrasonography (USG) at the bedside which can help in rapid treatment initiation to decrease complications. Treatment is generally intravenous antibiotics along with surgical drainage of pus and circumcision. There are very few cases of this in the world's medical literature

Case Report

A 31-year-old male presented to the emergency of North Bengal Medical College with complaints of swelling and pain in his penis for the last 1 week. He had no history of sexually transmitted disease, diabetes, injury, or insertion of any foreign objects in the urethra. On examination, he had a fever of 101 °C. Apart from this general survey and systemic examination were unremarkable. Local examination revealed the penis to be swollen (Figure 1). The overlying skin was red and it was tender to the touch. Bilateral inguinal lymph nodes were enlarged. Routine hematology was sent and USG was requested. The patient was also screened for sexually transmitted diseases. USG revealed the penis was enlarged in diameter. Both the corpora cavernosa and corpus spongiosum were intact along with their tunica with preserved vascularity. A 22mm X 45mm hypoechoic heterogeneous collection was seen in the ventral aspect of the penis between the shaft and the overlying skin along the whole length from the root up to the

glans with low-level internal echoes and surrounding inflammatory changes (Figure 2). A diagnosis of preputial cavity abscess was made. The patient was started on intravenous antibiotics Amoxicillin 1.2 grams thrice daily, Ceftriaxone 1 gram twice daily, and Metronidazole 500 milligram thrice daily and Incision and Drainage were done under General Anaesthesia along with circumcision. Approximately 30 ml of pus was drained, and sent to Microbiology for culture. Culture reports reported gonococci sensitive to the penicillin group of drugs including amoxicillin and ceftriaxone.

DISCUSSION

Abscess in the preputial cavity is a rare presentation. There are very few cases of this reported in world medical literature. A spontaneous preputial abscess is even rarer. It is seen mainly in uncircumcised males. Diabetics and immunocompromised patients are at increased risk. There is invasion of the preputial space by bacteria, debris, and smegma.¹ Diagnosis can be

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done confidently with ultrasonography.² It also helps to differentiate it from other conditions like cellulitis and cavernous muscle abscess,^{3,4} MRI is the best modality to rule out a coexisting penile abscess. Treatment includes intravenous antibiotics and analgesics. The pus needs to be drained. Circumcision with debridement of the infective area is the treatment of choice.⁵ Microbiological analysis of the pus sample commonly shows Gonococci.⁶

The complications of the surgery include surgical site infection and poor cosmetic results. If pus is not drained early it can lead to Fournier's gangrene. As per our knowledge and after reviewing the literature there are very few cases in world medical literature describing such preputial abscess,^{3,4,6} where physical exploration and blood analysis were the principal tools used for diagnosis. Our case series describes the usefulness of ultrasonography in making early diagnoses and treatment planning to prevent the development of complications. To summarise spontaneous preputial abscess is a rare clinical entity the diagnosis may be done based on clinical and hematological parameters but ultrasonography is a cheap and rapid means of making a confident diagnosis and planning treatment. Early drainage and debridement are necessary to avoid complications.

DECLERATIONS

Ethics Procedures followed were in accordance with the Declaration of Helsinki

Consent for publication

Written informed consent was obtained and the anonymity of the patient was ensured

Availability of data and materials

Not applicable

Competing interests

The authors declare that they have no competing interests

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Figures and Images



Figure 1 – Swollen up penis with a reddish hue over the overlying skin

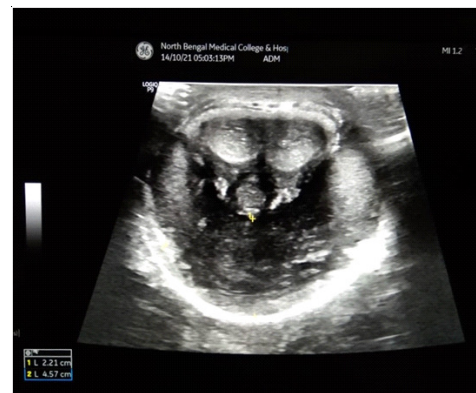


Figure 2A - Collection with internal echoes and debris between penile muscles and prepuce skin
axial section B-Sagittal section showing the central penile musculature and urethra and collection with internal echoes on both sides of the penis below the prepuce

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