



Case Report

## Preputial Abscess Secondary to Phimosis

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### Abstract

We present the case of a 36-years-old male without any relevant medical history admitted to our emergency room due to painful penile swelling with 48 hours of evolution after safe sex and a temperature. Blood analysis showed an elevation in the levels of acute phase reactants. Ultrasound was performed and showed a well-defined, hypo echoic and heterogeneous solid mass inside the foreskin.

An intravenous antibiotic therapy was conducted with amoxicillin and clavulanic acid. Postectomy was performed obtaining a solid material from the foreskin. The microbiological analysis of the drained material was positive for group A beta hemolytic streptococcus sensible to penicillin. The patient was discharged 24 hours after surgery in good general condition and with a normalization of his analytic parameters. One month after the intervention, there were no surgical complications and the cosmetic result was also good.

### Keywords

Preputial abscess; Phimosis; Circumcision

### Introduction

Phimosis consists of the partial or complete inability to retract the penis' foreskin. Uncircumcised patients are more likely to develop complications like paraphimosis, balanitis, or even tumors [1]. Balanoposthitis has an incidence rate of between 6-11% in patients with phimosis, *Candida albicans* being the most frequently involved germ [2].

### Clinical Case

A 36-years-old male without any relevant medical history was admitted to the emergency room of our hospital due to painful penile swelling with 48 hours of evolution after safe sex. The patient reported similar previous self-limited episodes in the past. Physical examination evidenced severe phimosis with painful and elastic swelling of the foreskin, preventing its retraction (Figure 1). The patient was febrile (38°C) and hemodynamically stable. Blood tests showed white blood cells  $14.80 \times 10^3/uL$  (4.50–11.00) with 14% bands, and procalcitonin of 4. Ultrasound was performed and showed a well-defined hypo echoic and heterogeneous solid mass inside the foreskin. An intravenous antibiotic therapy was conducted with 1 g/8h of amoxicillin and clavulanic acid.

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Taking into account the previously described findings, postectomy was performed by sub coronal incision, obtaining a solid material from the foreskin. The skin and mucosa's reconstruction were performed with absorbable interrupted sutures (Figure 2).

The pathological analysis of the submitted sample revealed a local inflammatory reaction without any other additional information. The microbiological analysis of the drained material was positive for group a beta hemolytic streptococcus sensible to penicillin. The blood culture was negative.

The period of recovery after surgery was uneventful and the patient was discharged 24 hours after the surgery in good general condition. The normalization of his analytic parameters was achieved with an antibiotic treatment of amoxicilin and clavulanic acid 500 mg/8h during one week.

One month after surgery the appearance of the surgical wound was adequate and the patient was satisfied with the outcome of the intervention (Figure 3).

### Discussion

The development of an abscess in the preputial cavity is a rare complication caused by the invasion of this space by detritus, smegma and bacteria [3], as shown in our report. Although the diagnosis is mainly clinical, we used ultrasounds to differentiate preputial abscesses from other complications like cellulitis and cavernous body abscess, as described by Napal et al. [4] and Mahler and Manthey [5] in their reports.



Figure 1: Preputial abscess.



Figure 2: Postectomy with cavity inside the foreskin.

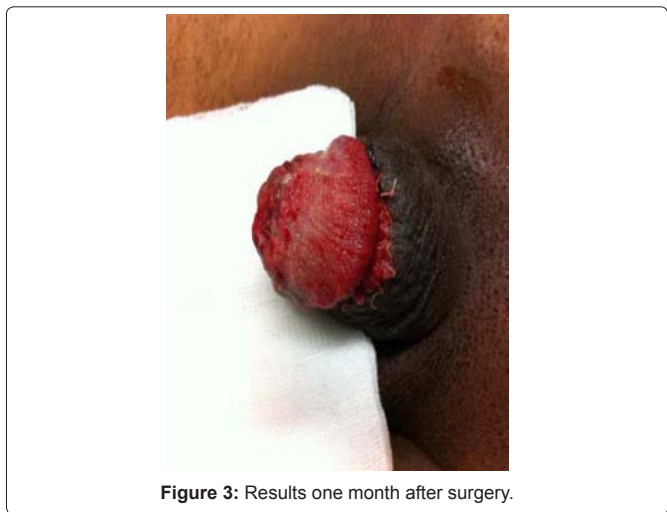


Figure 3: Results one month after surgery.

Treatment consists of antibiotics, drainage of the cavity and the removal of the precipitating factor (usually phimosis). Circumcision with wide debridement of the infected area is therefore the surgical approach of choice [6]. The main complications include surgical wound infection and a poor cosmetic result due to the lacking local conditions in which the intervention takes place. Patients who don't take proper care of this disease, risk developing Fournier Gangrene.

To our knowledge and after reviewing the literature in PUBMED and Medline, we can state that there are only three previous case reports describing such clinical preputial abscess [4,5,7] where physical exploration and blood analysis are the principal tools used for diagnosis. Ours emphasizes the usefulness of ultrasound in the diagnosis and the need for early surgical debridement to prevent the development of complications.

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