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Case Report

A Rare Case of Penile Fournier's Gangrene in A Young Healthy Patient

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Abstract

Fournier's gangrene refers to a rare perineal infection with fulminant evolution towards multiorgan failure if no surgical treatment is quickly instaured. It mainly affects immunocompromised patients. Very few cases of Fournier's gangrene circumscribed to the penis in young healthy patients were published to date. We treated a rare case of a penile Fournier's gangrene in a young healthy man.

Case Presentation

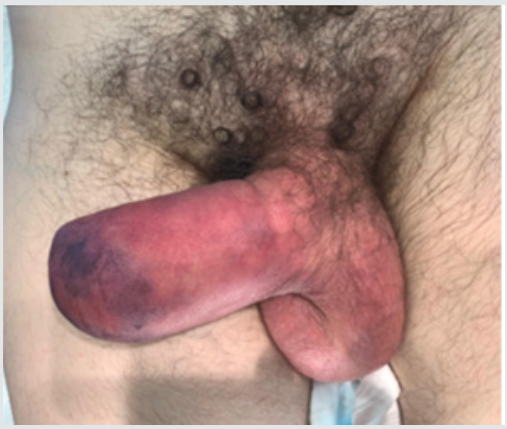

Figure 1: Patient's penis at presentation. Note the ongoing necrosis at the tip penile foreskin. Pulling back foreskin was impossible at this time due to excruciating pain.

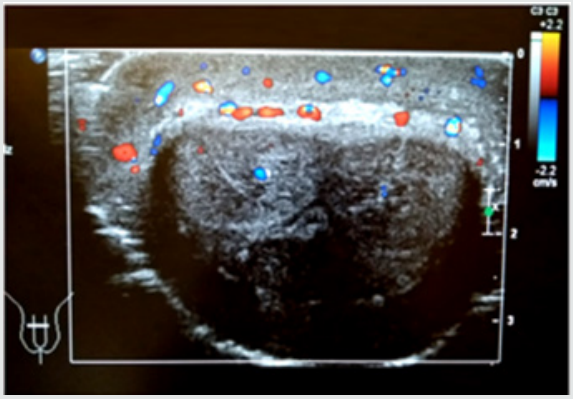

Figure 2: Penile ultrasound at arrival. Important oedema of the soft tissue sparing muscular tissues. Good permeability of vascular structures reported by the radiologist.

A 32-year-old healthy man was brought to hospital who consulted for a swollen and highly painful penis that started two

hours earlier. Upon anamnestic investigation, patient described a vesicular penian lesion a week before, following a single episode of non-protected sexual intercourse. On physical examination, his penis was abnormally erythematous and uniformly oedematiated, measuring approximately 18 cm in extension and 5 cm in diameter (Figure 1). Manipulations were impossible due to extreme pain. Fever, hypotension, and tachycardia were also present.Biochemical and hematological laboratory findings were consistent with an infectious state while urinalysis was not possible because patient could not urinate. Pain was refractory to opioid medication in high doses. An urgent penile US showed important subcutaneous signs of infection with sparing of muscular tissues (Figure 2).

We decided to complement with anabdominal-pelvic CT scan that did not reveal any abdominoperineal abnormalities.Immediate empiric broad spectrum antibiotic therapy (Piperacillin-Tazobactam 4.5g qid I.V. + Clindamycin 900 mg tid I.V.) was instaured after two swab skin tests and blood cultures. Emergent surgical debridement took place as well as suprapubic catheterization. At day 1, a second surgery was performed because of ongoing penile cutaneous necrosis (Figures 3&4). The patient remained in intensive unit care for 3 days for hemodynamic surveillance and hypoxemia. Wound care took place every day, with a protocol of water mixed Chlorexidine (©Hibidil) disinfection followed by generous application of hyaluronate plus silver sulfadiazine (Ialugen plus©) covered with a paraffin gauze dressing. A multisensible Streptoccus Pyogenes was isolated from one of the swabs and debrided skin while blood cultures where negative. Histo-pathological examination confirmed a Fournier gangrene. Large spectrum probabilistic antibiotherapy was replaced by Amoxicilline-Clavulate 1g bid PO for a total of 10 days. By day 15 (Figure 5), patient left the hospital and the same wound care protocol was continued with every-day outpatient consultations. By day 30, patient was submitted to a plastic reconstructive procedure (Figure 6). Suprapubic catheterization was withdrawn by day 36.

Figure 3: Aspect of the penis several hours after first debridement (day zero). Ongoing necrosis at the cutaneous tip of the penis.

Figure 4: Penile aspect after second debridement (day one). Necrotic penile foreskin was excised.

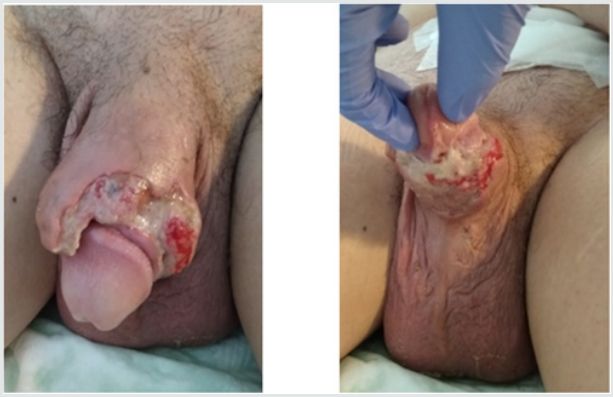

Figure 5: Aspect of the penis day 15 after debridement, dorsal view on the left, ventral view on the right. Note at least 1 cm sparing of ventral penile skin. Suprapubic catheter in place.

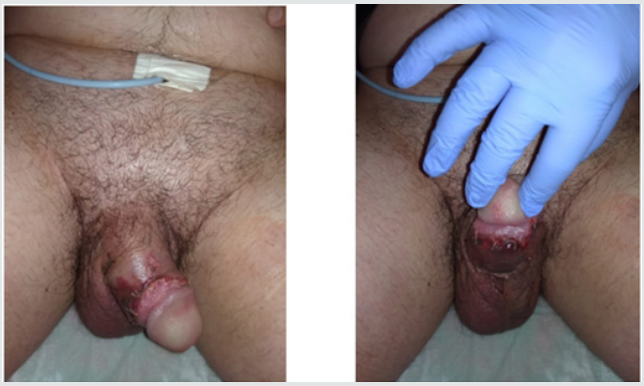

Figure 6: Aspect of penis by day 34 after first debridement, day 4 after plastic reconstruction with scrotal advancement flap. Suprapubic catheter still in place.

Discussion

Fournier's gangrene is a rare and rapid-evaluating soft tissue infection that requires urgent diagnosis and treatment with broad

spectrum antibiotics and surgical debridement[1]. In the majority of cases, patients need several debridement's in the first days after diagnosis[2]. Patient history needs to be considered. Mortality rates still approach 20 % nowadays[3].To our knowledge, this is one of the few reports of penile limited Fournier's gangrene in a healthy young patient. The decision to surgical intervention cannot be postponed if diagnosis is in doubt. Other differential diagnosis as penile fracture, paraphimosis or dorsal vein thrombosis may be evoked but must be promptly excluded by appropriate anamnesis, septic status and appropriate imaging tests as any delay might imply hazardous consequences. Patient's history is of paramount importance and cannot be overemphasized.

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