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Case Report

Fournier's gangrene of the penis

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ABSTRACT

Fournier's gangrene is a rare, fulminant, though generally localized disease of the scrotum and penis with occasional extension up the abdominal wall. The usual organism is an anaerobic streptococcus synergistic with some second organism. Our case was unusual in that only the penis was involved without involving the scrotum or abdominal wall. Early therapy is the key, including hospitalization, debridement of entire shaft of the penis distal to the devasted area without excising the normal skin, parenteral broad-spectrum antibiotics & skin grafting. Only few cases of Fournier's gangrene of the penis have been reported.

KEY WORDS

Fournier's gangrene, penile gangrene

INTRODUCTION

Fournier's gangrene is a rare disease involving the scrotum and penis with occasional extension up the abdominal wall.[1,2] This case was unusual in that only the penis was involved without involving the scrotum or abdominal wall. Only few cases of Fournier's gangrene of the penis have been reported.

CASE REPORT

A 50 year-old-male patient was presented with fever and pain with blackish discolouration of penis for 2 days. There was no history of trauma or any sepsis in the genito-perineal area. On general physical examination patient was febrile. Local examination revealed blackish discolouration of entire penile skin extending up to peno-scrotal junction without any clear line of demarcation. Multiple vesicles filled with haemorrhagic fluid were present over the penis. There were no other foci of infection in the genito-perineal area. The prostate gland was normal on rectal examination. Routine haematological examination revealed leucocytosis and neutrophilia. Urine microscopy revealed no abnormality. Random blood sugar, blood urea & serum creatinine were within normal limits. Ultrasonological examination of abdomen & pelvis was normal. Discharge sent for culture isolated mixed growth of Streptococcus pyogenes, Bacteroides fragilis & anerobic streptococcus sensitive to cefotaxime, ceftriaxone, amoxycillin+clavulinic acid & amikacin.

Patient was hospitalized and broad spectrum antibiotics like cefotaxime, amoxycillin+clavulinic acid and metronidazole were administered parenterally. Emergency multiple decompressing incisions were placed over the gangrenous penile skin & inflammatory fluid was drained. Two days later debridement was done. [Figure 1] After repeated debridement and dressings the bed was finally

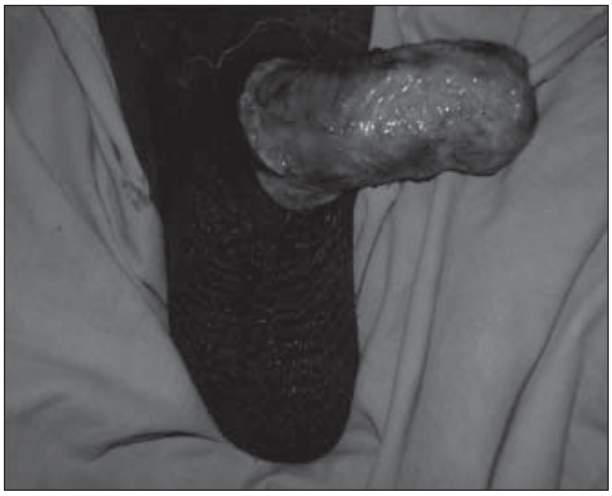

Figure.1: Fournier's gangrene of penis with "shameful exposure of corpora cavarnosae & spongiosum" after debridement.

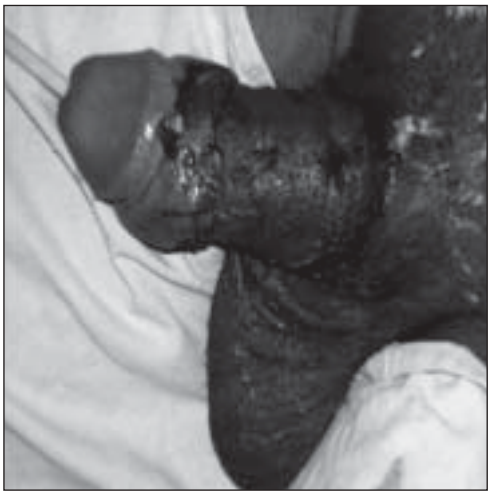

Figure. 2: Reconstructed penis with meshed unexpanded split thickness skin graft.

healthy; unexpanded meshed split thickness skin graft was performed by placing graft junction on ventral surface of the penis. Graft dressing changed on 4th & 6th post-operative day revealed 100% take of graft. [Figure 2]

Post-operative period was uneventful. At 11 months follow up the patient is asymptomatic with satisfactory cosmetic outcome. The erectile & ejaculatory functions were well preserved.

DISCUSSION

Fournier's gangrene is a rare, fulminant, though generally localized disease of scrotum and penis with occasional extension up the abdominal wall.[1,2] Even though found mostly in elderly male patients, the disease spares no age group & can involve the external genitalia in neonates & women as well. The disease is a necrotizing fasciitis of infective origin & always has a portal of entry of the infecting organisms even though it may be so trivial as to be undetected. The commonest portals of entry of infection are periurethral sepsis, groin wound sepsis, anorectal sepsis, prostatic sepsis & trauma. The infecting organisms comprise both aerobic & anaerobic organisms such as Escherichia coli, Streptococcus pyogenes, Pseudomonas aeruginosa, Klebsiella pneumoniae, Proteus mirabilis, enterococci, Bacteroides fragilis and anaerobic Streptococcus. Fournier's gangrene is probably the same disease as necrotising fasciitis occurring in the other parts of the body, but modified by the peculiar anatomy of the genito perineum.[3]

Abnormal sexual practices and parenteral drug abuse may play a role in the aetiology. Bernstein SM et al [1] and Mireku-Boateng AO et al[4] have reported cases with Fournier's gangrene of penis & penile ulcerations as sequelae of abnormal sexual practices and parenteral drug abuse.

Literature review revealed two cases of penile gangrene due to small vessel disease involving the entire penile shaft reported by Frydenberg,[5] which are a separate entity from Fournier's syndrome. Fournier's syndrome (gangrene) is a necrotising infection that is confined by the tough dartos fascia to the subcutaneous tissues of the male genitalia. But in the case reported by Frydenberg, not only was there necrosis of the penile corpora (involving structures deep to dartos fascia) but there was also no evidence of an underlying infective basis to the illness. Hence, this is a separate entity from Fournier's syndrome [5]. Even though Fournier's gangrene is caused by polymicrobial infection that includes virulent organisms, a case of Fournier's gangrene caused by low virulent organism, Lactobacillus gasseri has been reported by Tleyjeh IM et al[6] in the literature.

Treatment of Fournier's gangrene includes hospitalization, parenteral antibiotics & appropriate surgical debridement.[1,2] Meshed unexpanded split thickness skin grafting is used for reconstuction of penile skin loss. Black PC et al[7] had used meshed unexpanded split thickness skin graft for penile skin loss in nine patients which yielded satisfactory functional & cosmetic outcomes.

To conclude, our case is unusual in that only penis was involved & there was no detectable portal of entry. Only few cases of Fournier's gangrene of penis have been

reported so far.

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