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Short Communication

Interim management of exposed testicles in Fournier's gangrene before definitive treatment

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Fournier's gangrene is a necrotizing soft tissue infection involving the superficial and fascial planes of the perineum. It can rapidly spread to the surrounding soft tissues and has a mortality rate of up to 40%. It is relatively uncommon with an incidence of 1.6 per 100,000 males.^{1,2} Early and aggressive surgical debridement together with broad-spectrum antibiotics remains the mainstay of treatment. The affected tissues are debrided down to the healthy bleeding tissue with the possible addition of urinary and fecal diversions if necessary. Debridement of the scrotum is necessary in up to 30% of cases.³ Not only does it have lasting physical implications, but it has also been shown to have a significant negative impact on mental health. Reconstruction of the scrotum has been shown to improve patients' mental health and quality of life.⁴

Scrotal reconstruction following debridement is complex. Reconstructive options need to consider skin cover, cosmesis, and function of the testes. Current reconstructive options include split-thickness skin graft, full-thickness skin graft, local advancement flap, fasciocutaneous flap, muscle flap, or myocutaneous flap.⁵ Small defects can be left to heal as a secondary intention. The use of grafts with adjunctive negative pressure therapy is the most common form of reconstruction, often providing a better outcome than bulky flaps, but requires an intact tunica vaginalis. Open-meshed split-thickness

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grafts are preferred for scrotal reconstruction. They have the advantage of providing easy access to contour around the testicles and a better cosmetic outcome and are less prone to seroma formation.

Care must be taken to manage the testicles, after initial surgical debridement, to avoid retraction while awaiting definitive coverage. Retraction can be a significant problem thereby giving rise to incidental testicular trauma and pain, limiting options for definitive surgery, and causing abdominal implantation as a need.⁶ Traditional methods of interim management such as leaving the testicles open can lead to retraction. Burying the testicles in a subcutaneous pouch in the upper thigh is also used as a definitive treatment but can be cosmetically unacceptable to the young patient and have a risk of infertility because of the high risk of spermatic cord necrosis.⁷

We recommend that the testicles are sutured together using an interrupted absorbable braided suture (e.g., 3/0 Vicryl). The testicles are positioned side by side, as close to the normal anatomical position as possible by placing two or three interrupted sutures, 5 mm apart, and taking large bites of the tunica vaginalis. The wound can be dressed with either conventional dressings or negative pressure dressings depending on the location and size of the wound. Reconstructive procedures should be considered once the patient is stable and there are no signs of infection and evidence of healthy granulation tissue in the wound bed.

We have treated 8 patients by this approach, and overall, the patients are satisfied with the result. We observed that grafting without suturing often results in separated testicles, which can contract to either side of the penis. This approach, in our experience, is acceptable to patients, easy to perform at an early stage after debridement, and allows the normal anatomy to be preserved, thereby improving physiological and psychological outcomes.⁸

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Conflict of interest

None declared.

Ethical approval

Not required.

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