

Scrotal Reconstruction: Skin Graft versus Superomedial Fasciocutaneous Thigh Flap

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Abstract

Case Report

In this article, we will compare two surgical techniques most frequently used to treat scrotal defect, namely the thin skin graft and the superomedial fasciocutaneous thigh flap.

Keywords: Fournier's gangrene, scrotal defect, skin graft.

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INTRODUCTION

Fournier's gangrene is the commonest cause of scrotal defects in our environment, the management of the defects becomes important after tackling the emergent or sinister issues related to the fulminant infection.

The aims of reconstruction are to assist wound healing and provide adequate function and acceptable appearance.

Numerous techniques have been described for scrotal reconstruction reflecting the challenge and complexity these defects present. We used a thin skin graft to reconstruct a major scrotal defects following Fournier's gangrene, which proved to be safe, reliable and simple with minimal donor site morbidity.

CASE REPORT

A 55 years old male, with no medical history, has developed a Fournier's gangrene secondary to a perineal infection; he was first admitted to emergency and benefited from intravenous antibiotics and extensive debridement of the scrotum were done leaving the testicles fully exposed. Once the infection is eradicated the patient was referred to our department for a scrotal reconstruction.



Fig-1: Pre-operative aspect

We decided to cover the defect with a split-thickness skin graft STSG.



Fig-2: Immediate post-operative aspect



Fig-3: six months post-operative aspect

DISCUSSION

Most of the cases of scrotal defects are seen because of Fournier's gangrene and require radical debridement. Fournier's gangrene is usually a consequence of a polymicrobial infection and it can be fatal if not treated aggressively with wide radical debridement of the affected tissue and administration of intravenous antibiotic targeting both aerobes and anaerobes. Once the initial wound debridement has been completed and the infection has been eradicated; the testicles are usually exposed. These patients are commonly referred to the Plastic Surgery service for definitive treatment and coverage of the defect.

Reconstruction of the penoscrotal region represents a surgical challenge [2] because of the highly complex three-dimensional structures and the difficulties involved in achieving an esthetic appearance and normal functions [1].

STSG is the ideal procedure and includes performing a one-time reconstruction with adequate skin and subcutaneous thickness, resistant to traction and movements, with minimal sequelae to the donor area, which can maintain the optimal thermoregulation of the testicles for spermatogenesis and shows the natural psois of the scrotal region [5].

Superomedial fasciocutaneous thigh flap is a multi-staged procedure with several surgical procedures and delays, which mean longer hospital stay and surgical trauma for the patient. The flap is usually associated with a rotation dog-ear, which requires a later revision [2]; and the excess subcutaneous fat makes it somewhat bulky [5].

The simpler the approach, the better the outcome as reported by various studies [4].

CONCLUSION

STSG is a one-stage, simple and reliable procedure, which provides excellent cover for the exposed testes and give satisfactory protection and aesthetic outcome. We recommend their use for primary reconstruction of major scrotal defects following Fournier's gangrene.

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