Trauma and reconstruction

Late results of bilateral scrotal flap

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ARTICLE INFO

Keywords:
Paraffinoma penis
Bilateral scrotal flap

ABSTRACT

We present a late result of 27 year old man, who was operated in 2009 using bilateral scrotal flap (BSF) for paraffinoma localized to the penis, scrotum and pubic area. In 2010 the patient was operated again, because horseshoe relapse engaged the penis base, doing simple excision. Ten years later, the patient have excellence functional and cosmetic results.

Introduction

Paraffinoma of male genitalia (PMG) is a chronic granulomatous reaction to a “foreign body” developed after injection of exogenous substances. Injection of liquid paraffin in order to enlarge the penis is still common practice in Bulgaria. It led to the so-called paraffinoma - granuloma type “foreign body”, leading to a number of functional and cosmetic problems. The only effective treatment for this condition is operative.

More than 130 patients with PMG have been operated in Department of Urology, University Hospital “Dr. G. Stranski”, Pleven, Bulgaria in the last 12 years. The main surgical techniques used for the plastic reconstruction of the penis are: Simple excision, Bilateral scrotal flaps, Modified Cecil’s and plastic with Split-thickness skin grafts (STSG).

Case presentation

An 18 year old man was admitted to the Clinic of Urology at Medical University Pleven in 2009. A year ago, he was injected 20 ml liquid paraffin in his penis. The symptoms were pain, difficult erection and swelling. Detailed physical examination showed tender, granulomatous tumor formations engaging foreskin, shaft of the penis, pubic area and scrotum. There was no palpable enlargement of inguinal lymph nodes and no other pathological finding of external genitalia or anywhere else in the body. We removed completely the skin and subcutaneous tissue infiltrated by the foreign material. We used BSF for method of resurfacing. There were no complications and 7 days later the patient was discharged (Fig. 1).

After 9 months the patient was admitted again with horseshoe relapse around the base of the penis, which started before 3 weeks and grew rapidly. There were palpable enlargement of inguinal lymph nodes and no other pathological finding of external genitalia or anywhere else in the body. Pre-operative laboratory investigations were found to be normal. Patient underwent simple complete excision of the tumor formation and after 3 days was discharged (Fig. 2).

During 9 years follow-up patient was found to be healthy without any signs and symptoms. He has excellent cosmetic and functional recovery (Fig. 3).

Discussion

The use of foreign material (Paraffin or Vaseline) injection for penile augmentation makes a lot of serious complications: disfigurement, chronic and unhealed ulcer, painful erection, the inability to achieve sexual activities and satisfaction. The definite treatment is complete surgical excision of skin and subcutaneous tissue infiltrated by the foreign material and resurfacing of denuded penis. We use four surgical techniques for the plastic reconstruction of the penis: Simple excision, Bilateral scrotal flaps, Modified Cecil’s and plastic with meshed and unmeshed STSG.

The scrotal skin has high elasticity and seems to be a good material for penile coverage, despite its hairy nature, but patients with hirsute scrotal may be contraindicated. Results were successful and without any major complications. The reconstructed penis had immediate postoperative tactile sensibility.1 The blood supply of musculocutaneous scrotal flaps origin from anterior scrotal artery, which is branch of the external pudendal artery and running in the internal spermatic plane. Anterior scrotal artery supplied scrotal skin 62.5–100% (mean 75.9%) in anteroposterior dimension and 66–100% (mean 88%) in...
Fig. 1. Pre- and postoperative view, 2nd and 17th postoperative day.

Fig. 2. Before, during and after second operation.

Fig. 3. 9 years later.
superoinferior dimension. This BSF technique can achieve satisfactory results both anatomically and functionally.

We demonstrate with this case report an excellence anatomical and functional late results after BSF, despite the presents of relapse and need of second operation.

Conclusion
Surgical technique of Bilateral scrotal flap for paraaffinoma penis afford excellence late results.

Conflicts of interest
The authors declare that they have no competing interests.

Section headings
Inflammation and Infection.

Appendix A. Supplementary data
Supplementary data to this article can be found online at https://doi.org/10.1016/j.eucr.2019.100920.

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