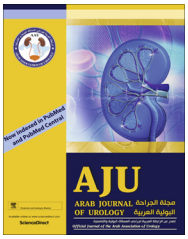
Arab Journal of Urology (2017) xxx, xxx–xxx

Arab Journal of Urology
(Official Journal of the Arab Association of Urology)

www.sciencedirect.com



POINT OF TECHNIQUE

Minimal surgical management of penile paraffinoma after subcutaneous penile paraffin injection

Athanasios E. Dellis [a,b,*], **Konstantinos Nastos** [a], **Demetrios Mastorakos** [a], **Dionysios Dellaportas** [a], **Athanasios Papatsoris** [c], **Panagiotis T. Arkoumanis** [a]

[a] *Second Department of Surgery, Aretaieion Academic Hospital, Medical School, National and Kapodistrian University of Athens, Athens, Greece*
[b] *First Department of Urology, Laikon General Hospital, Medical School, National and Kapodistrian University of Athens, Athens, Greece*
[c] *Second Department of Urology, Sismanogleion General Hospital, Medical School, National and Kapodistrian University of Athens, Athens, Greece*

Received 13 June 2017, Received in revised form 9 August 2017, Accepted 17 August 2017

KEYWORDS

Paraffinoma;
Penile augmentation;
Penile injection;
Penile reconstruction

ABBREVIATION

IIEF-5, five-item version of the International Index of Erectile Function

Abstract ***Objectives:*** To describe our reconstructive technique, without flap or graft use, after penile self-augmentation with injected substances, such as paraffin, which are still performed with unfortunate consequences.

Patient and methods: Successful single-stage minimal surgical management of an already twice unsuccessfully managed ulcerative penile paraffinoma in a 38-year-old Greek man.

Results: The patient was discharged with no postoperative complications, with a five-item version of the International Index of Erectile Function score of 23/25 (i.e. normal erectile function) and flaccid penile length of 5 cm.

Conclusions: Penile paraffinoma is a serious complication that can be successfully managed with a single-stage minimal surgical procedure, with normal aesthetic and functional results.

* Corresponding author at: Second Department of Surgery, Aretaieion Academic Hospital, Medical School, National and Kapodistrian University of Athens, 76, Vas. Sofias Ave., 11528 Athens, Greece.
E-mail address: aedellis@gmail.com (A.E. Dellis).

Peer review under responsibility of Arab Association of Urology.

ELSEVIER Production and hosting by Elsevier

http://dx.doi.org/10.1016/j.aju.2017.08.003

Introduction

The first documented paraffin injection in the literature was reported by Gersuny in 1899 [1]. He described a case of paraffin injection in the scrotum of a boy who had undergone bilateral orchidectomy for genital tuberculosis. However, due to serious complications of this practice, such as infection, ulceration and fistulation [2], the method was abandoned. Penile augmentation with injected substances is still performed in many Asian countries, mainly by the patients themselves or by non-professionals [3,4] with disastrous consequences. In the present study, we describe our technique performed in the first reported case of a successfully managed paraffinoma caused by paraffin injection in the penile corpus, without flap or graft use.

Case description

A 38-year-old Greek man presented in the outpatient clinic with penile pain, painful imperfect erections, and penile shaft circumferential ulceration. He reported a total of six paraffin self-injections in the penile shaft (four around coronal sulcus and two bilateral injections approximately at the penile base). He reported using 3 mL of paraffin oil about 5 years previously, in an attempt of penile augmentation. The initial 4 years were uneventful, but during the fifth year he noticed skin ulceration with necrosis. The patient had undergone a surgical exploration elsewhere 8 months previously, with surgical removal of ulcerative and fibrotic tissue, as well as circumcision. He underwent a re-operation after 2 months due to incomplete resection of the ulcerated skin. As a result of these two procedures the penile shaft skin was scirrhous and fibrotic, with the ulcer causing further deformity (Fig. 1). As the patient was not referred to our department but presented in the outpatient department as an emergency case, we were not able to access any precise information regarding previous procedures. He reported no history of tuberculosis or penile trauma. Physical examination revealed a painful ulcerated lesion with necrotic areas over the penile shaft skin, whilst the scrotum which initially seemed normal, after careful examination revealed a 5-cm fibrotic scirrhous mass in the mid-scrotal area with several diffuse satellite fibrotic lesions bilaterally. There were no palpable regional lymph nodes. The routine laboratory tests revealed a slightly elevated glucose level and the patient reported a history of poorly controlled diabetes mellitus. Erectile function was assessed using the five-item version of the International Index of Erectile Function (IIEF-5) questionnaire, where he scored 7/25, i.e. severe erectile dysfunction.

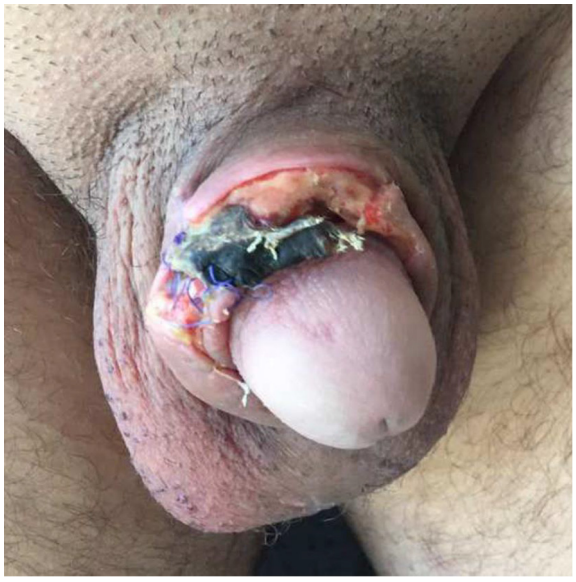


Fig. 1 Penile deformity preoperatively.

Surgical technique

A circumferential sub-coronal and 0.5-cm medial-to-the-lesion penile shaft incision was made. The whole fibrotic and ulcerated tissue between the dartos and Buck's fascia was excised, after it was longitudinally cut. Our deepest limit was Buck's fascia. We tried not to use electrocautery to avoid damage to the neurovascular bundles, as the extent of the fibrotic tissue due to the paraffin injections and past history of circumcision had completely altered the normal subcutaneous anatomy. Furthermore, electrocautery use coagulates small vessels and potentially impedes proper blood supply, and thus optimum healing. Our main goal was to completely eradicate the lesion; because if even small amounts of paraffin are still present the lesions relapse. The penile deficit was rehabilitated using a medial prepuce–suprapubic advancement flap that covered the whole stripped penile shaft like a glove. We considered that it was not safe to use scrotal flaps, due to several satellite lesions in both semi-scrotal areas and the scirrhous mid-scrotal lesion; moreover the patient had a history of diabetes mellitus. A pubic liposuction was performed to prevent buried-penis effect, whilst an Alexandrite laser was used to eradicate hair follicles. Finally, we removed all palpable scrotal masses in a one-by-one fashion, in an attempt to destroy the least possible scrotal tissue, given the extent of the paraffin spread. The patient was discharged 24 h later and there were no postoperative complications (Fig. 2). At 7 weeks after surgery the patient's erectile function was re-assessed using the IIEF-5, he scored 23/25, i.e. normal erectile function, and his flaccid penile length was 5 cm. The aesthetic result was remarkable considering its initial presentation. The patient further returned for follow-up at 6 months after our surgical attempt in a stable and according to him 'excellent' condition (Fig. 3).

Please cite this article in press as: Dellis AE et al. Minimal surgical management of penile paraffinoma after subcutaneous penile paraffin injection, *Arab J Urol* (2017), http://dx.doi.org/10.1016/j.aju.2017.08.003