# Penile Paraffinoma: A Treatment Dilemma

A Bogdanov-Berezovsky, Y Krieger, I Romanovsky, Y Shoham, L Rosenberg, E Silberstein

**Citation**

A Bogdanov-Berezovsky, Y Krieger, I Romanovsky, Y Shoham, L Rosenberg, E Silberstein. *Penile Paraffinoma: A Treatment Dilemma*. The Internet Journal of Plastic Surgery. 2014 Volume 11 Number 1.

**Abstract**

The practice of paraffin injections for penile enlargement is still in use in the Far East and Eastern Europe despite potentially dangerous complications. The treatment options for penile paraffinomas range from conservative measures to extensive operative treatment. Seven Thai labor immigrant males were treated in Soroka University Medical Center due to complications of paraffin injections for penile enlargement during the years 2007- 2012. We report our experience in these cases, focusing on two cases that underwent extensive operative treatment.

## INTRODUCTION

The first report of paraffin injection into the male genitalia is dated to 1899, when mineral oil was injected into the scrotum of a boy who had undergone bilateral orchiectomy for genital tuberculosis [1]. Disfiguring subcutaneous nodules as an adverse reaction following subcutaneous paraffin injections were reported in 1906 [2]. Despite potentially dangerous complications, the practice of paraffin injections for penile enlargement is still in use in the Far East and Eastern Europe [3-6]. There are several treatment options for penile paraffinomas ranging from conservative measures, including intralesional steroid injections and hot-water baths, to more extensive radical operations [4-9].

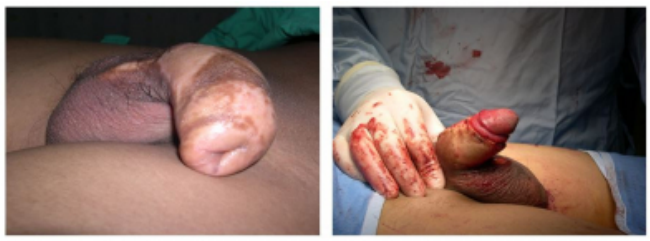
Seven Thai labor immigrant males, ages ranging 27-31 years old, were treated in Soroka University Medical Center (SUMC) due to complications of paraffin injections for penile enlargement during the years 2007- 2012. Five of them, suffering mild symptoms, were treated conservatively in an outpatient setting. Two patients, suffering severe symptoms, were admitted to the hospital and subsequently operated. We report our operative experience in these two severe cases of paraffin injections for penile enlargement.

## PATIENT #1

A 28 year old Thai male presented with severe penile edema, phimosis and inability to commit coitus two years after self-injecting paraffin into his penis. The patient noticed a protracted and progressive inflammatory process in his penis since the injection. Upon examination, severe edema and foreskin subcutaneous lumps were seen down to the scrotum. Examination of the glans penis was impossible due to phimosis. Due to his severe condition we decided on operative treatment. Intraoperatively, the skin of the penile shaft was near-totally excised down to the scrotum base. Large amounts of liquid paraffin were extracted from the subcutaneous space. The raw surface of the penile shaft was reconstructed by a remaining local skin flap (Figure 1). The post operative period was uneventful, with the patient being discharged on the second postoperative day, and further outpatient follow up was normal. The histology report was concurrent for a paraffinoma with a prominent foreign body inflammatory reaction.

**Figure 1**

Phimosis, edema and discoloration of the penile skin after paraffin injection (left) and after operation (right)



## PATIENT #2

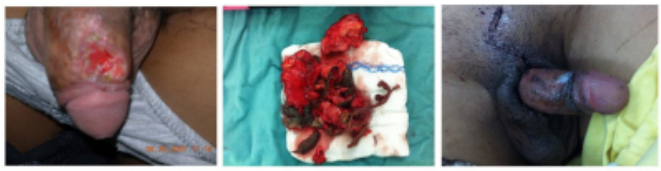
A 29 year old Thai male presented with symptoms of acute penile infection one year after penile paraffine injection by a non-medical practitioner. As in the case above, the patient complained of a progressive inflammatory process since the

injection. Upon examination, severe prepucial swelling, inflammation and skin ulcers were seen on the penile shaft. Large subcutaneous lumps in the pubic area and on the spermatic cord were also seen. The patient also suffered from substantial bilateral inguinal lymphadenopathy with multiple enlarged lymph nodes.

The patient was hospitalized and initially treated by intravenous cephalosporines and saline dressings which led to improvement of the inflammatory process. Due to the severe and extensive nature of the disease we decided on operative treatment in this case as well. Intraoperatively, all the damaged granulomatous skin was excised down to the tunica albuginea from the glans penis to the scrotum. All fibrotic masses were carefully separated from the spermatic cords and completely removed through a separate zigzag incision in the pubic area. The denuded penile shaft was covered by a split thickness skin graft harvested from the right thigh [Figure 2]. The patient's recovery was uneventful and he was discharged on the eighth postoperative day. The histological analysis demonstrated a foreign body inflammatory reaction with infiltrates and fibrosis.

**Figure 2**

Cutaneous ulcers, chronic inflammation and edema due to paraffine oil injection (left), fibrotic granulomatous masses removed from the penis and the pubic area (middle) and penile shaft coverage by skin graft (right)



## DISCUSSION

Paraffinomas consist of a granulomatous foreign-body reaction inducing a sclerosing lipogranuloma because the human body lacks the enzymes to metabolize interstitial exogenous oils, and a foreign-body reaction occurs as a reaction to paraffin substance injection [7]. There are several treatment options ranging from conservative measures, including intralesional steroid injections and hot-water baths, to more extensive radical operations. We previously published our experience in conservative treatment in selected cases of penile paraffinomas, however we were unable to conduct a long term follow up in those cases [8]. Five of the patients reported in our current manuscript suffered from mild forms of genital inflammation caused by paraffin oil injections, and were successfully treated by intralesional steroid injections. The inflammatory reaction gradually subsided, however the penile granulomas remained. This granulomatous foreign-body reaction could potentially provoke further inflammatory events. We could not assess the final results of conservative measures and define them as successful due to lack of further follow up since the patients returned to their homeland.

Two patients with severe forms of protracted and progressive inflammatory symptoms underwent operative treatment. Extensive removal of all infiltrates was performed. The penis was covered in the first case discussed by rearrangement of the remaining skin as local flaps .In the second case coverage was achieved by a split thickness skin graft. The immediate results were defined as successful, from a functional as well as an aesthetic point of view. It should be noticed that the post-operative follow up was limited to two months due to the patients' return to Thailand.

Although our report is limited to 7 cases, some common details should be noted.

All patients noted a protracted and progressive course of inflammatory process, caused by paraffin oil injection into the genitalia. Histological evaluation demonstrated foreign body reactions with prominent inflammatory changes, infiltrate formation and fibrosis. We believe that conservative treatment alone cannot eliminate the basis for chronic progressive inflammation. It is our opinion that only radical operative treatment and reconstruction can allow patients to regain the ability to return to their routine activities.

In conclusion, we recommend operative treatment for progressive penile paraffinomas with maximal removal of granulamatous infiltrates and immediate reconstruction.

### References

1. Gersuny R, Harte und weiche Paraffin prosthesen. Zentralbl Chir. 1903; 30: 1.
2. Heidingsfeld ML. Histopathology of paraffin prosthesis. J Cutan Dis. 1906; 24: 513-21.
3. Pehivalov G, Kavaklieva S, Kazandjieva K, et al. Foreign body granuloma of the penis in sexually active individuals (penile paraffinoma). J Eur Dermatol Veneorol. 2008; 22(7): 845-51.
4. Santos P, Chaveiro A, Nunes G, et al. Penile paraffinoma. J Eur Acad Dermatol Venereol. 2003; 17: 583–4.
5. Akkus E, Iscimen A, Tasli L et al. Paraffinoma and ulcer of the external genitalia after self-injection of Vaseline. J Sex Med. 2006 Jan; 3(1): 170-2.
6. Bobik O Jr, Bobik O Sr. Penile paraffinoma and ulcers of penis. Bratisl Lek Listy, 2011; 112(11): 653-4.
7. Picozzi S, Carmignani L. Paraffinoma of the penis. Int J Emerg Med, 2010; 3: 507-508.
8. Rosenberg E, Romanovsky I, Asali M, et al. Three cases of penile paraffinoma: a conservative approach. Urology,

2007; 70 (2): 372 e9-10
9. Choudhury N, Frame JD, Lewi HJE. Penile paraffinoma and a novel treatment. BJU International, 2003; 91: 1.

## Author Information

**A Bogdanov-Berezovsky, MD, PhD**
Department of Plastic and Reconstructive Surgery, Soroka University Medical Center, Faculty of Health Sciences, Ben-Gurion University of the Negev
Beer-Sheva, Israel

**Y Krieger, MD**
Department of Plastic and Reconstructive Surgery, Soroka University Medical Center, Faculty of Health Sciences, Ben-Gurion University of the Negev
Beer-Sheva, Israel

**I Romanovsky, MD**
, Department of Urology, Soroka University Medical Center, Faculty of Health Sciences, Ben-Gurion University of the Negev
Beer-Sheva, Israel

**Y Shoham, MD**
Department of Plastic and Reconstructive Surgery, Soroka University Medical Center, Faculty of Health Sciences, Ben-Gurion University of the Negev
Beer-Sheva, Israel
yshoham@bgu.ac.il

**Lior Rosenberg, MD**
Department of Plastic and Reconstructive Surgery, Soroka University Medical Center, Faculty of Health Sciences, Ben-Gurion University of the Negev
Beer-Sheva, Israel

**E Silberstein, MD**
Department of Plastic and Reconstructive Surgery, Soroka University Medical Center, Faculty of Health Sciences, Ben-Gurion University of the Negev
Beer-Sheva, Israel