

Penile Cellulitis and its Medical Treatment Due to Self-Injection of Non-Injectable Enlargement Cream Into Penis for Penile Augmentation: Case Report of a Unique Complication and Review of Literature

Enjekte Edilebilir Formda Olmayan Büyütme Kreminin Penisini Büyütmek Amacıyla Penise Enjeksiyonuna Bağlı Penil Selülit ve Tıbbi Tedavisi: Özgün Bir Komplikasyona Dair Olgu Sunumu ve Literatür Derlemesi

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ABSTRACT For men, it is sense that penile size is a determining factor of a success in sexual relation with their partners. The “small penis syndrome (SPS)” may be defined as an anxiety about insufficient penile size despite the clinical examination being normal, and it may be associated with psychiatric condition. However, it is surprising to see not only medical agents but also non-medical materials can be tried for penile augmentation, even rarely by self-injection. The complications of the self-injection of non-medical materials are generally treated with surgical procedures. In this case, we reported a 50-year-old male patient with penile cellulitis due to self-injection of a non-injectable penile enlargement cream and its non-surgical treatment with intravenous antibiotic and hyperbaric oxygen therapy and review of the literature.

Keywords: Penile diseases; cellulitis; hyperbaric oxygenation

ÖZET Erkekler için penis boyu, ilişki performansını etkileyen önemli bir unsur olarak görülmektedir. Penis boyunun normal olmasına rağmen penisin küçük olduğunun düşünülmesi "küçük penis sendromu" olarak tanımlanır ve bu tablo bir anksiyete ve daha ciddi psikiyatrik problemler oluşturabilir. Penis büyütmek amaçlı tıbbi veya tıbbi olmayan maddeler kullanılabilir ve nadiren bu yöntemler kendi kendine enjeksiyon şeklinde de olabilir. Tıbbi olmayan maddelerle penis büyütme çalışılması sonucunda gereken tedavi genellikle cerrahidir. Biz bu vakamızda, enjekte edilemeyen formdaki kremi penis büyütmek amaçlı penisine enjekte eden ve sonrasında gelişen penil selülit ile kliniğimize başvuran 50 yaşında erkek hastanın antibiyotik ve hiperbarik oksijen tedavisi ile tedavisini sunuyoruz.

Anahtar Kelimeler: Penis hastalıkları; sellülit; hiperbarik oksijenasyon

Many individuals are misinformed or unaware of basic information about sexuality and have sexual concerns or questions on penile size. The “small penis syndrome (SPS)” may be defined as an anxiety about insufficient penile size despite the clinical examination being normal, and it may be associated with a psychiatric condition. In such men from different cultures with the focus on “bigger is better”, misinformation or myths may lead to uninformed sexual decisions, or interventions with serious consequences, such as the injection of exogenous substances into the penis, that can lead to significant complications requiring extensive medical or surgical treatment.^{1,2}

In this report, we present a case of a penile cellulitis due to self-injection of a non-injectable penile enlargement cream by a medicinal person and its medical treatment. Terminology use in our article conforms to the standards recommended by Sexual Medicine.³

CASE REPORT

A 50 year-old man who has suffered of penile pain and swelling had counseled our clinic from emergency service. In his medical history, he admitted a self-injection of a non-medical enlargement cream (Mega Penis Enlargement / Enlarging Cream, imported from France) into subcutaneous tissue of his penis for the purpose of penile augmentation, even though its manufacturer describes usage of the product just by applying the cream over the entire length of the penis and massaging penis with it. Approximately 3-4 hours later he had a pain, swelling and fever in his genitalia. He had a temperature of 40°C. In physical examination, penis was circumcised and there were erythema, warmth, pain and swelling in penis while the scrotum was normal. Especially proximal ventral side and distal dorsal side of the penis swelling were more remarkable (Figure 1). Penile shaft was massively enlarged however; he was still able to pass urine. In his medical history, there was no other comorbidity such as, diabetes mellitus, coronary heart disease, etc. No other focus of infection in the genito-perineal area was detected.



FIGURE 1: Penis with erythema and swelling.

In laboratory investigation, a complete blood count revealed white cell count of $31.4 \times 10^3/\text{microL}$ with neutrophilia of $27.46 \times 10^3/\text{microL}$ (87.4%); routine biochemistry was normal. In his penile ultrasound evaluation, corpus cavernosum and bilateral corpus spongiosums were normal and there was subcutaneous edema and heterogeneous appearance with the increase of bloody but. Urine analysis and culture showed no evidence of infection. And in his history of the patient, there was no known comorbidity and no suspicious sexual relationship with anybody.

The patient was diagnosed with penile cellulitis due to self-injection of a non-injectable topical cream. Intravenous appropriate antibiotherapy (ceftriaxone 2 gram/day) and eight-seance hyperbaric oxygen therapy (HBOT) at 2.5 atmospheres absolute pressure (ATA) was planned.

Third day of the treatment white blood cell decreased significantly and inflammation findings in the penis also regressed. Seventh day of the treatment white blood cell decreased in its normal degree and the penis view decreased approximately normal (Figure 2). The patient was discharged with the suggestion of routine control. In his first year routine control, there was no late complication or inspection problem.

DISCUSSION

With the use of invasive treatment like intracavernous or subcutaneous penile self-injection for the purpose of penile augmentation, some possible complications such as penile cellulitis, penile abscess and the worse form of these, fournier gangrene may occur.

Over time, various types of agents such as paraffin, silicon, vaseline, metallic mercury, methacrylate, subcutaneous stone, autologous fat and cod liver oil have been tried. The complications of these agents were generally treated with surgical procedures.⁴⁻¹⁶

Self-injection for penile augmentation becomes more remarkable with the cause of easy application. In the literature there are few case reports for self-injection for penile augmentation.



FIGURE 2: 7th day penis view.

However most of these were treated with surgical procedures except of three ones (Table 1). *Akkus et al* has reported a case of mineral oil (vaseline) self injection treated with local therapy (intralesional triamcinolone and hot water baths) because of the patient's refusal surgery. Rosenberg et al. and Coskuner et al. have also reported cases treated with only intravenous antibiotherapy.¹⁷⁻¹⁹

HBOT is an adjuvant wound therapy that has been suggested to be beneficial for the healing of wounds for over 40 years.²⁰ Oxygen (O₂) is distributed to the tissues through the pressure gradient; tissue hyper-oxygenation has anti-inflammatory and painkilling effects, it increases bacterial permeability to antibiotics, strengthens neoangiogenesis, reinforces lymphocytes and macrophages function, augments testosterone secretion (in

males), and finally enhances wound healing process.²¹ Shaw et al. has reported that HBOT in addition to antibiotic therapy may decrease health-care cost and save lives in severe soft tissue infection treatment in the long run.²² In our case, because of the cream sterility is unknown and the risk of fournier gangren due to superinfection of the penile soft tissue, HBOT was planned in addition to antibiotic therapy.

We present our unique experience in one patient who have been successfully managed conservatively with appreciate antibiotic and HBOT. We suggest that immediate removal of penis skin with or without scrotum skin may occasionally be instituted only in difficult cases where tissue healing is not possible. To our knowledge, this patient represent the first of such cases reported that treated with antibiotic and HBOT in the literature to date, which unfortunately remains scant. Although our experience from this case cannot be generalizable across all such patients, larger prospective series concerning patient selection for salvaging functional penis tissue may be warranted.

Conflict of Interest

Authors declared no conflict of interest or financial support.

Authorship Contributions

Article writing, discussion and literature review: Sercan Yılmaz; **Idea, design and analysis:** Engin Kaya, Bilal Fırat Alp; **Critical review:** Emin Aydur, İbrahim Yıldırım.

TABLE 1: Literature characteristics.

No	Author	No. of Patient	Material Used	Treatment	Injection By
1	Cohen et al ¹⁰	CR	Mineral oil (vaseline)	Surgery	Self injection
2	Wiwanitkit ²³	8	Olive oil, Vaseline, Paraffin	Surgery	Self injection
3	Akkus et al ¹⁷	CR	Mineral oil (vaseline)	Local therapy	Self injection
4	Rosenberg et al ¹⁸	3	Mineral oil (vaseline)	Atb therapy (Surgery for 2 not reported patients)	1 Self injection (2 Not reported)
5	Margill et al ²⁴	CR	Silicone	Surgery	Self injection
6	Coskuner et al ¹⁹	CR	Hyaluronic acid gel	Atb therapy	Self injection
7	Song et al ²⁵	CR	Petroleum jelly (vaseline)	Surgery	Self injection
8	De Siati et al ²⁶	CR	Paraffin	Surgery	Self injection
9	Scholten et al ²⁷	CR	Paraffin and Petroleum jelly	Surgery	Self injection
10	Mouraviev et al ²⁸	CR	Crystalline Cocaine	Surgery	Self injection
11	Present Case*	CR	Non-medical Cream	Atb & HBOT	Self injection

CR: Case report; PA: Penile augmentation; Atb: Antibiotic; HBOT: Hyperbaric oxygen therapy.

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