

Penile Siliconoma: A Case Report

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Introduction. The use of liquid silicone, paraffin and other types of mineral oil with the aim of increasing the size and changing the contours of the penis is well known in primitive communities. Despite the many serious complications resulting from this practice. Cases of penile siliconoma have been widely reported.

Case. A 66-year-old man comes to the Primary Health Center with complaints of swelling, accompanied by purulent wounds, pain, and shortening of the penis. The patient had injected silicone (Rita hair oil) in his penis by injecting the shaft of his penis, he began to wear silicone about $\pm$ 2 years ago. On genital exam found swelling and purulent wounds on the penis, contours irregular penis, flat surface and not bumpy, tenderness (+), with a soft consistency; laboratory examination showed leukocytosis ($21 \times 10^3/\mu\text{L}$)

Discussion. Siliconoma penis occurs due to continuous irritation over a long period of time with silicone. Rejection reaction to a foreign body as a normal response of the body appears in the form of inflammation, causing clinical symptoms such as pain, swelling of the penis, induration, ulceration, edema, scarring, discoloration of the skin on the penis, deformity, pain during erection and inability to perform sexual activities.

Conclusion. Siliconoma of the penis occurs as a result of the injection of a liquid with a high viscosity in this case silicone with the aim of enlarging the penis has many consequences damaging the sexual and cosmetic functions of the organ.

Keywords: silicone injection, siliconoma penis, secondary infection

Introduction

Silicon is widely used in industry and healthcare because of its diverse physical forms. Silicon is an organopolysiloxane, one of a class of polymers consisting of basic units made of silicon, oxygen, and organic radicals with the formula $\text{CH}_3\text{-Si-O-CH}_3$, and its chemical name is dimethylpolysiloxane. Silicone is made for medical purposes in a variety of physical forms. Even the hardest silicone rubber can be sculpted on the operating table by the surgeon and shaped to fill in defects or provide near-contour improvements. In addition, following implantation, silicone implants retain their flexibility, a property that is important in reconstructive surgery. Clinically, silicone is used for shunts in hydrocephalus therapy and for pacemakers and heart valves in cardiovascular surgery; in plastic surgery, silicone has been used for facial contouring and breast reconstruction [1-4].

If the implant is relatively safe from toxicity, the tissue response to it is generally a local reaction on

the surface between the implant and the surrounding tissue. In the absence of trauma, bleeding, or surgical infection, the initial reaction of the implant is the formation of a layer of granulation tissue, unlike that which occurs in any wound. The granulation tissue then slowly transforms, until it occurs in all granulation tissues, into fibrous tissue. The magnitude of fibrosis, will reflect the magnitude of physical irritation, and implant toxicity. If an initial acute cellular response is evident, the likelihood of secondary infection, damage to the wound, or impairment and the need to remove the implant increases [1-4].

The use of liquid silicone, paraffin and other types of mineral oil with the aim of increasing the size and changing the contours of the penis is well known in primitive communities. Despite the many serious complications resulting from this practice, this kind of trend grew in popularity into the 20th century. Cases of penile siliconoma have been widely reported in the international literature most occurring in Asia, Russia, and Eastern Europe [1-4].

Silikonoma is a chronic granuloma that arises due to continuous irritation over a long period of time with silicone. Siliconoma or sclerosing lipogranuloma is often a skin condition characterized by numerous granulomas and fibrosis that occur in subcutaneous fatty tissue as a result of injection of silicone or other mineral oils [3-4]. Siliconoma of the penis occurs due to the injection of high viscosity fluid for the purpose of enlarging the size and changing the contour of the penis. Because the material cannot be metabolized by the body, causing the body's reaction to foreign objects. The consequences are a risk to health and require immediate intervention so as not to lead to impaired organ function [5].

Case Report

A 66-year-old man comes to the Primary Health Center with complaints of swelling, accompanied by purulent wounds and pain in the penis. Pain is felt heavier during erection and the penis is also felt to be shrinking/shortening, which is experienced $\pm$ 1 year. The lump according to the patient was initially small and the penis has not been noticeably shortened but over time the penis became noticeably shortened, previously several times the penis was red and swollen, but it returned to normal within a few days after taking medication (Mefenamic acid and amoxicillin). The patient had injected silicone (Rita hair oil) in his penis by injecting the shaft of his penis by his neighbor. According to patients after such silicone injections the penis immediately enlarges. The reason for wearing silicone is to increase his confidence and also be able to satisfy his wife. At first the patient was invited by his neighbor to inject silicone on his penis, and the patient began to wear silicone about $\pm$ 2 years ago.

Patients have experienced the same thing before. A history of fever and gonorrhea is refuted. Previously had treatment to the midwife (Amoxicilin and injection unknown) but no change. There are families who also suffer from the same (relatives) and neighbors and friends of the patient. A history of hypertension, diabetes mellitus, asthma, tumors, and malignancies is denied to the patient.

On physical examination, he was conscious of compost mentis with blood pressure 110/70 mmHg, heart rate 84 times/minute, respiratory rate 20 times/minute with saturation 99% on room air.

On physical examination, skin, eyes, ear, nose, mouth, throat, neck, lymph nodes, thorax, lungs, heart, and extremity found to be within normal limits. Examination of the regio genitalis revealed swelling and purulent wounds on the penis, irregular

contours of the penis. On palpation was found a swollen wound on the penis, flat surface and not bumpy, tenderness (+), with a soft consistency (Fig. 1).



Figure 1. Penile siliconoma before treatment

Laboratory examination showed haemoglobin 14 g/dL, leukocytes 21,000/uL, hematocrit 41%, erythrocytes 3.7×10^6 /uL, platelets 318×10^3 /uL, random blood sugar 112 mg/dL. HIV, syphilis, and HbsAg examination showed non reactive.



Figure 2. Penile siliconoma after treatment

Then, the patient was diagnosed with a silikonoma penis with secondary infection (Fig. 2). Patients treated with mefenamic acid 500 mg every 8 hours, ciprofloxacin 500 mg every 12 hours, methylprednisolone 4 mg every 12 hours, metronidazole 500 mg every 12 hours. The patient is advised to take care of the hygiene of the genital area and frequently change underwear/do not use

underwear. Then the patient is advised to be referred to the hospital (surgeon/urologist).

Discussion

The diagnosis of penile siliconoma in these patients is based on anamnesis, physical examination and supporting examinations. In the anamnesis, there are complaints of discomfort in the penile region accompanied by swelling and pain. A history of using liquid materials that were injected two years ago.

Based on the literature silikonoma penis occurs due to continuous irritation over a long period of time with silicone. Complaints of this disease usually appear after a few months to several years after the injection of fluids with high viscosity and performed by non-medical personnel [2-6].

On physical examination in the penile region, there is swelling, skin discoloration and changes in the contour of the penis. Rejection reaction to a foreign body as a normal response of the body appears in the form of inflammation, causing clinical symptoms such as pain, swelling of the penis, induration, ulceration, edema, scarring, discoloration of the skin on the penis, deformity, pain during erection and inability to perform sexual activities [7-9].

Laboratory support examination on leukocyte count obtained a value of 21 thousand. This kind of thing is caused by a chronic inflammatory process along with infection due to the presence of a foreign body in the interstitial, while the body does not have enzymes to metabolize the exogenous material, resulting in a rejection reaction to the foreign body. This chronic inflammatory process is mediated by macrophages, lymphocytes and sometimes a cluster of giant multinucleated cells [10].

The therapy is by reduction in the fibrosis tissue and reconstruction. Definitive therapy in penile siliconoma patients is by excision and removal of masses in the skin and subcutaneous tissue that can cause organ function disorders [11]. In this case, treatment is given in the form of antibiotics and anti-inflammatories while being referred to Urology Surgery Specialists.

Conclusion

Siliconoma of the penis occurs as a result of the injection of a liquid with a high viscosity in this case silicone with the aim of enlarging the penis has many consequences damaging the sexual and cosmetic functions of the organ. Almost always these actions are advised and performed by people who are not trained and do not have a medical background.

Definitive therapy in patients with penile siliconoma cases includes Excision and complete removal of masses in the skin and subcutaneous tissue that can cause organ function disorders. This technique is the right method to avoid the symptoms of this disease appearing again in the future.

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