International Journal of Scientific Advances
ISSN: 2708-7972
Volume: 5 | Issue: 6 | Nov – Dec 2024 Available Online: www.ijscia.com
DOI: 10.51542/ijscia.v5i6.61

# Penile Siliconoma: Case Report

**Alfonsina Chrissan Pentury*, Ninoy Philip Mailoa**

General Surgeon, Dr. M. Haulussy General Hospital, Ambon, Indonesia

E-mail: alfonsina.pentury@gmail.com; milanoyx@yahoo.com

*Corresponding author details: Alfonsina Chrissan Pentury; alfonsina.pentury@gmail.com

**ABSTRACT**

***Background:*** Injection of high-viscosity fluids such as paraffin and mineral oil into the genitals is often done by non-professionals in a non-standardized manner. The goal is to enlarge the size of the peis although many serious complications are caused by this practice including complications such as penile siliconoma. **Case *presentation:*** A 29-year-old male patient came with complaints of difficulty urinating for 1 week. Complaints were accompanied by swelling and redness around the penis and pain. Previously 3 days ago, the patient tried to enlarge his penis by inserting liquid Vaseline gel with a syringe into the inside of the penis skin until the penis enlarged. On physical examination, a mass was found in the penis region accompanied by edema. The patient was treated conservatively and with excision. ***Discussion:*** Early signs of penile siliconoma include swelling, redness, and edema, giving the impression of a larger penis, caused by the body's reaction to exogenous lipids, with definitive treatment being excision of the mass to prevent organ dysfunction. ***Conclusion:*** Penile siliconoma occurs due to infection of high-viscosity fluid in this case silicone with the aim of enlarging the penis has many effects that damage the sexual and cosmetic function of the organ. Conservative therapy can be done to reduce inflammation while definitive therapy is by excision.

***Keywords:*** excision therapy; penile siliconoma; sclerosing lipogranuloma.

## INTRODUCTION

The injection of high-viscosity fluids, such as paraffin and mineral oils, into the genitalia has been practised for over a century. These injections are often carried out by non-professionals and are performed in an unstandardised manner.[1,2] The use of liquid silicone, paraffin, and other mineral oils for penile enlargement and alteration of penile contours has been documented in primitive societies, despite the significant complications arising from such practices, including the development of penile siliconoma.[2–5]

Penile siliconoma occurs as a result of prolonged irritation caused by silicone injections. The body's normal immune response to foreign substances manifests as inflammation, leading to sclerosis and the formation of lipogranulomas. This condition is often named according to the injected substance, such as paraffinoma, siliconoma, or vaselinoma of the penis.[1,6,7]

## CASE REPORT

A 29-year-old male presented with a one-week history of difficulty urinating, accompanied by swelling, redness, and pain in the penile region. The patient reported that three years prior, he had attempted to enlarge his penis by injecting liquefied Vaseline gel into the penile skin using a syringe. This procedure caused immediate enlargement of the penis. Since then, the patient occasionally experienced pain in the penis, along with redness and swelling.

To alleviate the symptoms, he has been using warm compresses and taking over-the-counter pain relievers. However, for the past week, the symptoms had persisted without relief. There was no associated discharge of pus, dysuria, fever, nausea, or vomiting. The patient had a history of urethral discharge one year prior, which resolved spontaneously without treatment. He also reported multiple sexual partners and unprotected intercourse.

On physical examination, the patient appeared in good general condition, alert and oriented, with a blood pressure of 140/90 mmHg, a pulse of 90 beats per minute, a respiratory rate of 18 breaths per minute, and a temperature of 36.6°C. Local examination of the genitalia revealed hyperemia and oedema of the penis, with a soft, smooth mass measuring 3x5 cm (Figure 1). The mass had indistinct borders, was warm to the touch, and was tender upon palpation.


**FIGURE 1:** The penis appears edematous and hyperemic (A-B).

Laboratory results showed the following: white blood cell count 5,110/µL, red blood cell count 5.03 million/mL, haemoglobin 13.4 g/dL, haematocrit 44.3%, MCV 88.1 fL, MCH 26.6 pg, MCHC 30.2 g/dL, platelets 224,000/µL, basophils 2.2%, eosinophils 22.0%, neutrophils 35.8%, lymphocytes 32.6%, monocytes 7.4%, NLR 1.10%, total lymphocytes 1.7 thousand/µL, bleeding time 2 minutes, and clotting time 6 minutes.

The patient was diagnosed with penile siliconoma and was treated with Ceftriaxone 2x2 grams, Ranitidine 150 mg IV, Ketorolac 3x30 mg, and Albumin 3x1 tablet. Surgical excision and reconstruction were planned.

**DISCUSSION**

Penile enlargement through the injection of various substances (paraffin, silicone, mineral oils) remains a highly controversial practice. This procedure is often performed by patients themselves or individuals without formal medical training.

In this case, the diagnosis of penile siliconoma was based on the patient's history, physical examination, and supporting investigations. The patient reported discomfort in the penile region, accompanied by swelling and pain, with a history of liquid injections administered three years earlier. According to the literature, penile siliconoma results from sustained irritation caused by silicone. Symptoms often develop months or even years after the injection of high-viscosity liquids.[2,8] The initial symptoms after injection typically include swelling, inflammation, and redness of the penile skin, which can create the appearance of an enlarged penis. This occurs because the human body lacks the enzymes necessary to break down exogenous lipids, thus triggering a foreign-body reaction. In the early stages, a non-tender mass may form, which in many cases remains asymptomatic for years.[1] Symptoms may include sexual dysfunction, with both pain during intercourse and difficulty in performing sexual activity.

On physical examination, the patient exhibited swelling and discolouration of the penile skin (Figure 1). The body's immune response to the foreign material results in inflammation, leading to clinical symptoms such as pain, swelling, induration, ulceration, oedema, scarring, skin discolouration, deformities, pain during erection, and sexual dysfunction.[1,2,9,10]

The primary treatment goal is to restore the function of the penis as a sexual organ while achieving satisfactory cosmetic results.[1] In this case, the treatment included antibiotics, anti-inflammatory agents, and excisional surgery. The conservative approach, using antibiotics, aims to reduce fever and swelling. Definitive therapy for penile siliconoma involves the excision and removal of the mass from the skin and subcutaneous tissue, which may cause functional impairment.[2,8,11,12] If complete excision is not achieved, there is a high risk of symptom recurrence.[1]

To date, surgery remains the preferred treatment for this condition. Surgical management is considered a complex, time-consuming procedure that may require a staged approach. Efforts to excise the granulomatous nodules subcutaneously while preserving the skin often result in worse scarring or skin necrosis. In cases involving the corona sulcus, excision of the corona may also be necessary to prevent a hard ring around the penile shaft after surgery due to residual tissue.[1,8,11–14]

For non-reconstructive urologists, a two-stage scrotal flap procedure is a viable option, as it is relatively simple. This two-stage procedure involves: (1) complete excision of the granuloma and coverage of the exposed penis with scrotal skin, and (2) a V-Y incision on the scrotum 3-6 months later to reconstruct the penis.[1,15] This technique can be performed even if half of the penile skin is involved. For skilled urologists, simple techniques can facilitate this procedure.[1,4,13]

Despite its simplicity, the technique requires careful attention to detail to achieve satisfactory surgical outcomes. The main principle is to remove all lipogranulomas; even small remnants of granulomas can lead to recurrence and further complications.[1]

## CONCLUSIONS

Penile siliconoma results from the injection of high-viscosity fluids, such as silicone, with the goal of penile enlargement. This practice leads to significant sexual and cosmetic dysfunction of the penis. These procedures are almost always performed by untrained individuals without medical expertise. The definitive treatment for penile siliconoma involves excision and thorough removal of the mass from the skin and subcutaneous tissue, which can impair organ function. This surgical approach is crucial to prevent the recurrence of symptoms in the future.

**Acknowledgments**

all authors and all research support.

## REFERENCES

[1] Soebhali B. Sclerosing lipogranuloma of the penis: A review of management and classification. Bali Medical Journal 2020;9:55–61. https://doi.org/10.15562/bmj.v9i1.1623.

[2] Ifran I. Penile Siliconoma. Brawijaya Journal of Urology 2024;5:17–20. https://doi.org/10.11594/bjurology.2024.005.01.5.

[3] Bains P, Kaur S. Silicone in dermatology: An update. J Cutan Aesthet Surg 2023;16:14. https://doi.org/10.4103/JCAS.JCAS_204_22.

[4] Bubishate S, Al Sharrah S, Almedej H, Elshebiny H, Almahmid M, Alenezi H. Rare presentation of penile abscess after 15 years of penile silicone injection. Urol Case Rep 2021;39:101867. https://doi.org/10.1016/j.eucr.2021.101867.

[5] Suleiman M, Mustafa A, Ainayev Y, Urazova S, Garkalov K, Muldayeva G, et al. The surgical management of penile oleogranuloma: case series. Int J Impot Res 2024;36:509–14. https://doi.org/10.1038/s41443-023-00779-1.

[6] Gutiérrez-Zurimendi G, Albisu-Tristán A, Rosa Gil-Martín A, García de Ca-sasola-Rodríguez G, Luis Lozano-Ortega J, Urresola-Olabarrieta A, et al. Granulomatous inflammation of the penis due to injection of an unknown substance. vol. 79. n.d.

[7] Hehemann MC, Towe M, Huynh LM, El-Khatib FM, Yafi FA. Penile Girth Enlargement Strategies: What's the Evidence? Sex Med Rev 2019;7:535–47. https://doi.org/10.1016/j.sxmr.2018.11.003.

[8] Soebhali B, Felicio J, Oliveira P, Martins FE. Sclerosing lipogranuloma of the penis: a narrative review of complications and treatment. Transl Androl Urol 2021;10:2705–14. https://doi.org/10.21037/tau-21-228.

[9] Söhling N, Ondreka M, Kontradowitz K, Reichel T, Marzi I, Henrich D. Early Immune Response in Foreign Body Reaction Is Implant/Material Specific. Materials 2022;15:2195. https://doi.org/10.3390/ma15062195.

[10] Veiseh O, Vegas AJ. Domesticating the foreign body response: Recent advances and applications. Adv Drug Deliv Rev 2019;144:148–61. https://doi.org/10.1016/j.addr.2019.08.010.

[11] Chico Goerne MB, Khogeer A, Davison P, Carrier S, Aubé-Peterkin M. Alternative surgical management of penile siliconoma using partial degloving and resurfacing. Archivio Italiano Di Urologia e Andrologia 2023. https://doi.org/10.4081/aiua.2023.11150.

[12] Salauddin SA, Ghazali H. Surgical Techniques for Correction of Penile Paraffinoma. Malaysian Journal of Medical Sciences 2019;26:137–42. https://doi.org/10.21315/mjms2019.26.6.14.

[13] Menna C. Excision and Unilateral Inguinal Skin Graft Reconstruction on a Four-Year Old Penile Granuloma. International Journal Of Medical Science And Clinical Research Studies 2022;02. https://doi.org/10.47191/ijmscrs/v2-i8-03.

[14] Daniswara N, Pandoyo PAS, Nugroho EA, Santosa A, Soedarso MA, Addin SR, et al. Smile Incision-Modified Technique for Better Scrotal Outcome in Surgical Management of Penile Paraffinoma. Urol Int 2023;107:935–42. https://doi.org/10.1159/000534348.

[15] Iswara RrTRL, Ul Hakim MA, Malineni J, Hidalgo KY. A Case Report: A Scrotal Flap for Penile Paraffinoma Reconstruction. Jurnal Rekonstruksi Dan Estetik 2023;8:59–65. https://doi.org/10.20473/jre.v8i2.43054.