

Sclerosing Lipogranuloma of the Penis Secondary to Olive Oil: Case Report

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ABSTRACT

Introduction: Chronic granulomatous inflammation can develop after injecting sclerosants, such as foreign oily substances, into the penis. The disorder primarily affects the administration site, but regional lymphadenopathy may appear to be a systemic disease. **Clinical Case:** A 25-year-old male patient, single with grade I obesity and initially from Nayarit, Mexico. He started his current condition three months ago after injecting olive oil into the penis to increase its thickness. Subsequently, he went to the general practitioner to present a picture of partial urinary obstruction after one week of evolution due to the increased volume of the foreskin, for which his doctor decided to cut the foreskin to free the glans penis and thus resolve the obstructive picture. **Discussion:** Paraffinomas result from an injection of a foreign substance that contains a linear chain of saturated

hydrocarbons, such as mineral oil or paraffin. The body lacks the enzymes to metabolize the interstitial exogenous oils; consequently, a foreign body reaction occurs. Patients often present with penile deformity because the oil and subsequent granuloma cannot extend beyond the standard anatomical planes of the genitalia. The foreign body reaction manifests in inflammation and induration, edema, scarring, necrosis, deformity, ulceration, painful erections, and, eventually, the inability to perform sexual activities. Reactive lymphadenopathy of the region develops, and gross deformity can lead to clinical confusion with a misdiagnosis of neoplastic and often warrants biopsy.

Keywords: Sclerosing lipogranuloma, Self-injection penis, Penile augmentation, Paraffinoma.

INTRODUCTION

Chronic granulomatous inflammation can develop after injecting sclerosants, such as foreign oily substances, into the penis. The disorder primarily affects the administration site, but regional lymphadenopathy may appear to be a systemic disease.

Paraffinoma is a foreign body reaction incited by exogenous agents such as oily substances. Other frequently used names for the disorder include sclerosing lymphogranuloma, mineral oil granuloma, and oleo granuloma. The first paraffin injection was reported by Gersuny in 1899 when injected mineral oil into the scrotum of a child who had undergone bilateral orchiectomy for genital tuberculosis.

The effects of the injection of oils were reported as early as 1906 by Heidingsfeld, who described disfiguring subcutaneous nodules in two patients who received paraffin injections for facial wrinkles. Based on the resulting complications, this practice is infrequent in Western countries; however, it is still an activity in the Dayak Borneo tribe; in the past, a ritual of drilling the glans and inserting items into the resulting orifices for stimulation was widely practiced. The Topinama of Brazil has a tradition that a poisonous snake that bites its penis will make it bigger.

The use of mineral oil for genital augmentation in modern times was undertaken by Robert Gersuny, who injected Vaseline into a boy who had undergone a bilateral orchiectomy for genital tuberculosis. The procedure's success encouraged him to use Vaseline as filler for another soft tissue defect. Foreign materials are injected into different body organs (e.g., the penis, breasts, cheeks, eyelids, muscles, and nose), similar to today's widespread botox injection (1).

CLINICAL CASE

Male patient of 25 years old, single with grade I obesity, and initially from Nayarit, Mexico. He has a history of HIV infection of 5 years of evolution in treatment with TDF (tenofovir) / 3TC (lamivudine) / DTG (dolutegravir), currently with undetectable viral load. He refers to the consumption of tobacco and occasional alcohol as well as risky sexual practices up to six months ago.

He started his current condition three months ago after injecting olive oil into the penis to increase its thickness. Subsequently, he went to the general practitioner to present a picture of

partial urinary obstruction after one week of evolution due to the increased volume of the foreskin, for which his doctor decided to cut the foreskin to free the glans penis and thus resolve the obstructive picture.

Due to the lack of improvement, he went to the urology service as he continued with a progressive increase in the volume of the foreskin, accompanied by pain on palpation and occasional bleeding; he also presented ulceration and deformity of the penis (Figs. 1 and 2).



Figure 1: Sclerosing lipogranuloma of the prepuce with ulceration that limits its retraction.



Figure 2: Sclerosing lipogranuloma limited to the prepuce.

He decides to go to the urology department where, on physical examination, they find a deformed, ulcerated, non-reducible, indurated foreskin with color changes. Circumcision was performed with a double incision, obtaining a neoplasm of 7 cm in diameter with subsequent

suturing with 2-0 chromic catgut (Figures 3, 4), after which the patient showed a favorable evolution without presenting recurrences or alterations in micturition and erection. A lesion sample was sent for histopathological study (Fig. 5).



Figure 3: Penis after circumcision that removes lipogranuloma.



Figure 4: Penis with post-operative circumcision.



Figure 5: The surgical piece was sent to pathology.

DISCUSSION

Currently, there is no widely accepted classification of sclerosing lipogranuloma. In 2012, Sejben et al. (3) proposed classification as local, locoregional, and systemic). This classification also reflects the incidence of each category. In our institutions, we follow another classification proposed by the primary author (BS) as a guide for managing this disorder. The problem in the penis, with or without the scrotum and suprapubic fat involvement. Soebhali's classification (1-3) is as follows:

- Category 1. A minimal lesion, less than one-third of the penis, without suprapubic or scrotal involvement.
- Category 2. Injury to the penile shaft, more than one-third of the penis, without suprapubic or scrotal involvement.
- Category 3. The lesion in the shaft of the penis, with suprapubic involvement and half or less category of scrotal involvement.
- Category 4. Lesions on the penis, suprapubic, and more than half of the scrotum.

Paraffinomas result from an injection of a foreign substance that contains a linear chain of saturated hydrocarbons, such as mineral oil or paraffin. The body lacks the enzymes to metabolize the interstitial exogenous oils; consequently, a foreign body reaction occurs. Patients often present with penile deformity because the oil and subsequent granuloma cannot extend beyond the standard anatomical planes of the genitalia. The foreign body reaction manifests in inflammation and induration, edema, scarring, necrosis, deformity, ulceration, painful erections, and, eventually, the inability to perform sexual activities. Reactive lymphadenopathy of the region develops, and gross deformity can lead to clinical confusion with a misdiagnosis of neoplastic and often warrants biopsy. These clinical changes may be gradual, as Paraffinomas can occur several months to years after injections. In patients who are reluctant to admit that they have had penile injections, the diagnosis can be clinically challenging. Sclerosing lymphogranuloma describes histopathologic features, including the replacement of normal subcutaneous tissue by cystic tissue and oil spaces. These spaces appear as empty cysts when stained with hematoxylin and eosin. Dense fibrous tissue and chronic inflammatory granulomatous cells surround these oil lakes, including foreign body giant cells (4).

Although a diagnosis of sclerosing lipogranuloma cannot always be wrong, it is necessary to keep in mind other diagnostic possibilities such as a buried penis, which refers to a normal-sized phallus surrounded by skin, subcutaneous tissue, and/or fat in the prepubic area. Due to reduced visible and functional phallic length, this condition is often associated with patient dissatisfaction related to cosmetic, hygienic, voiding, and sexual dysfunction issues. Posterior phimosis can lead to spraying, dribbling, urinary fouling, and skin breakdown.

Many times, the meatus is not visible and may mask undiagnosed urethral disease related to lichen sclerosis also known as balanitis xerotica obliterans.

Also, a buried penis often limits penetrative sexual intercourse. In some series, clinical depression has been observed in the majority of patients before the operation. While weight loss may improve some symptoms for those who have an obesity-related buried penis, many men have significant remaining prepubic fat deposits along with ptosis of the prepubic fat pad,

or shield, which may benefit from surgical repair. Other causes of buried penis include deficiency of penile skin associated with circumcision or trauma, Fournier's gangrene, or complications of penile enlargement surgery. In addition, severe scrotum, lymphedema, and genital hidradenitis often result in a penis with a severe deficiency of normal scrotal skin to use for reconstruction. In general, adult acquired buried penis has become an increasingly common problem seen by reconstructive urologists (5).

The treatment depends on the type of lesion and the sclerosing agent, generally of a surgical type (perineoplasty), without forgetting cancers of the penis.

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