



ORIGINAL RESEARCH PAPER

General Surgery

IATROGENIC ALLOGENOSIS IN GENITALS A CASE REPORT

KEY WORDS: Iatrogenic Allogenosis, Biopolymers; Silicone; Injection; Filling Substances, Foreign Modelling Agent Reaction (fmar); Penile Augmentation; Genitals.

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ABSTRACT

BACKGROUND: Iatrogenic Allogenosis has become an increasingly frequent disease, victimizing humans of aesthetics and perfection. It is a reality that has been growing and that brings various health problems and complications. A case of application of injectable substances is reported at the genital area level, very few cases have been documented, which is why we will focus on this topic. Considering that it constitutes today a serious public health problem throughout the world, and that this type of patient requires multidisciplinary care.

OBJECTIVE: The objective of this report is to present a clinical case of a male patient diagnosed with iatrogenic allogenosis in genitals, its management and possible treatments.

MATERIALS AND METHODS: We present a clinical case of a 41-year-old patient who applies injectable substances (biopolymers) to the penis, causing functional and aesthetic complications. A review of the subject is carried out, which is currently very limited.

CONCLUSION: patients who seek a penis enlargement using fillers, lead to various disorders, including complicated infections that can lead to severe sepsis and even death, also seriously influences the psychological-psychiatric aspect of the patient; all the consequences of this disease are long-term physical, psychological and socioeconomic, some cases require several surgical procedures which leads to a large public expense in each country.

INTRODUCTION

In recent years, human beings have been victims of perfection and aesthetics; which has led to the use of injectable substances not allowed, both solid and liquid, to acquire beauty and aesthetic perfection of some parts of the body, finding skin damage from inflammation, ulceration and deformation due to the appearance of fibrosis, ulcers or fistulas, especially in areas such as buttocks, legs, breasts, facial region, and increasingly more frequently in the genital area.

A disease that happens more and more frequently, affects more than 1 million people in the world, mainly women in Latin America.¹ Known as iatrogenic allogenosis, a term used in the last 10 years¹, named because it is caused by allogenic substances what is the same to say strange to the organism; and also called as foreign modeling agent (FMAR) reactions or biopolymers².

The use of these agents has been documented for more than a century, and in the genital area: in 1899 when Gersuny

injected paraffin as a prosthesis in the scrotum of a patient who had undergone a bilateral orchiectomy due to testicular tuberculosis. But this technique was no longer used due to the complications that arose, later these types of deformations were known as paraffin granulomas and later as paraffinomas.² There are very few studies or reported cases of these substances in the genital area, which is why We will focus on this topic and present a case report. Considering that, today it constitutes a serious public health problem throughout the world.

CLINICAL CASE

This is a 41-year-old male patient with no significant personal history and no relevant family history. The patient in 2009 decided to apply biopolymers to the genitals in a place that he did not specify, the substance and the amount of which was injected are unknown. In 2017 he went to emergencies referring to a great deformity of the body of the penis for approximately 1 year, and apparently it is accompanied by voiding effort with decreased voiding and pain upon erection.

Physical examination shows bulging and penile deformity, palpating a mass that appears to be subcutaneous about 8 cm in diameter on the back of the penis and another mass at the base of the penis about 2 cm in diameter, without pain on palpation. **Figure 1-2**



Fig. 1 Penile deformation by application of Biopolymers.

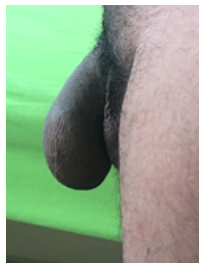
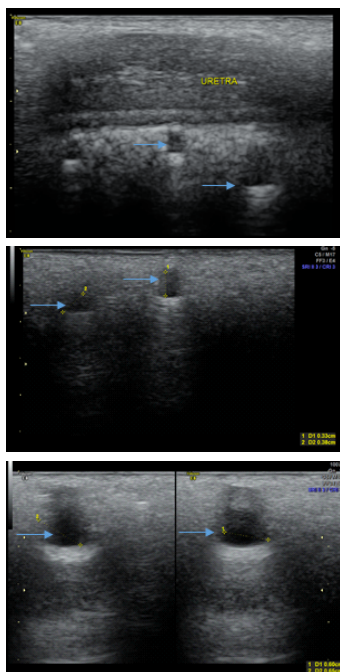


Fig. 2 Penile deformation lateral view.

COMPLEMENTARY EXAMS

Laboratory tests are performed, which are within normal parameters. Regarding image exams:



PELVIC ECOGRAPHY:

a hypoechogenic nodular-looking image (blue arrows) is observed, randomly distributed throughout the thickness of the subcutaneous cell tissue, they do not penetrate the albuginea, the spongy bodies and cavernous bodies remain intact, as well as the urethra. Nodular lesions measure between 3 and 6 mm.

Given the ultrasound findings, it was decided to carry out a pelvic magnetic resonance study to delimit the presence of the substance.



PELVIS MAGNETIC RESONANCE:

There are nodular-looking lesions (red arrows) with intermediate signal intensity, of various dimensions: the largest of 6.0mm., Distributed on the skin of the penis that would be related to silicone nodules. In addition, slight scrotal asymmetry with an increase in the size of half of the left pouch. Normal looking testicles, bladder, and intestinal loops.

Last examination performed approximately two years after the first contact with the patient, for which a large penile deformity caused by the injected material was already seen on physical examination. **Figure. 3**

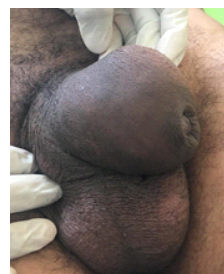


Fig. 3 Presence of tumor and deformation after 10 years of the application of injectable substances.

Ten years have passed since the application of biopolymers, and it is evident that we are facing Iatrogenic Alogenosis; Given this diagnosis, the patient has been admitted to hospital for several occasions by the Psychiatry service; those who manage the patient's mental health due to the affectation of their self-esteem and quality of life; that has been fully altered associating a depressive episode.

For our part, it is conservatively managed based on a scale proposed by Torres GB et al³. So far, there is no classification instrument for this disease, however, it has been decided to use this scale to evaluate the injury caused by infiltration of substances for modeling purposes in symptomatic patients³. The aforementioned scale was used in the first place for those people who injected allogenic material into the breast. **Table 1.**

Table. 1 INSTRUMENT FOR EVALUATING AND STADIFYING INJURY FROM INJECTED SUBSTANCES

1. AMOUNT OF FILTERED SUBSTANCE	SCORE
Less than 200 mL	1
From 200 to 500mL	2
From 500mL to 1 litro	3
More than de 1 liter	4
2. INFILTRATED ZONES	
1 infiltrated area	1

2 or 3 zones	2
More than 3 infiltrated areas	3
3. TYPE OF INFILTRATED SUBSTANCE	
Derivatives of dimethylsiloxane (silicone)	1
Biopolymers or methacrylates	2
Commercial oils(mineral, industrial,etc.)	3
Combined Substances	4
4. Symptoms	
Local inflammation (pain, heat, flushing)	1
Hyperthermia and attack on the general state	1
Concomitant arthralgias, myalgias, or autoimmune diseases	1
Pneumopathy	1
5. SIGNS	
Presence of nodulations	1
Substance migration	1
Hyperpigmentation and skin stiffening	
Ulcerations or infection	1
6. LABORATORY STUDIES	
Normal	0
Leukopenia	1
Hihg reactive C protein	1
Increase of VSC	
Multiple organ failure	1
7. NUCLEAR MAGNETIC RESONANCE	
Skin and tissue involvement. Subcutaneous cell	1
Muscular condition	1
Involvement of other organs	1

Taken from:Torres et al.3

STAGE I: 6 TO 10pts. STAGE II: 11 TO 17 pts. STAGE III: 18 TO 23 pts. STAGE IV: 24 A26pts

Scale that according to the stage in which the patient is, is given treatment. (Refer to Torres et al.)³ In this case, the patient is in Stage I, with 10 points given by: amount of substance infiltrated: 1, Infiltrated areas: 1, Substance type: 4, Symptoms: 1, Signs: 2, Laboratory studies: 0, NMR: 1. For which, we focus on maintaining an expectant treatment, active monitoring of symptoms in the case of to worsen, opting to indicate rheumatological-pharmacological treatment (combining different substances such as methotrexate, meticorten, colchicine, folic acid) in less than 4 months.³ Treatment that was not instituted in this patient because he did not present urinary symptoms and priority was given to psychological-psychiatric treatment. Depending on the scale and stage you are in, it may not require surgical treatment.

DISCUSSION

According to Coiffman, F. the disease is becoming more frequent, more commonly occurring in women. The latency period of the signs and symptoms varies between a few hours and 25 years¹, in our patient it occurs 7 years after exposure, however we can note that the age varies markedly from patients aged 18 to an average of 30-40 years.²

A recent study by Wasserman et al⁵, in 1995 on the application of silicone to the corpora cavernosa and soft tissue of the penis, described a case of debilitating granuloma of the penis and scrotum.⁵

The problem of the disease increases because the patients do not know the substance that has been administered to them¹. More frequently documenting substances derived from silicone, mineral and vegetable oils, paraffin, automobile engine oil, guaiac oil, lanolin, petroleum jelly, paraffin, beeswax, animal fat, polymethylmethacrylate, polyglactin and polyalkylimide.² In some of In cases, the administered substance is combined, which gives rise to various complications and increases the risk if it is mismanaged, resulting in a multiorgan autoimmune response.⁴ One of the

most widely used substances is industrial silicone, with drastic results after its application. awareness of the public can avoid using of this material for penile augmentation⁶.

There are few documented cases of iatrogenic allogenosis in the genitals, this location being less frequent, but not less important. Furthermore, we can verify that the clinical manifestations in another part of the body (glutes, breasts, lower extremities and face) are similar to that of our patient. Presenting common signs of inflammation, fibrosis, hardening, tumor and a significant deformation. What can lead to the patient presenting phimosis, difficulty during sexual intercourse and urinary problems.

The injection of petroleum jelly heated under the skin of the penis is an existing practice, mainly in Eastern countries and Eastern Europe.⁷ And it has been described in the USA patients who bought a mineral oil product (1 Super Extenze) in order to obtain growth on the penis. Subsequently, they presented deformation of the penis secondary to the appearance of sclerosing lipogranulomas, which required surgical intervention, cases documented in 2011 by Manny and Pettus.⁸

In the surgical aspect, Zoltán et al⁹, carried out a study on the possible solutions that can be given to vaseline auto injections in the penis. Study of 78 patients who were divided into three groups. And depending on the case, some surgical procedures were performed: Circumcision, Circumcision + local excision, Circumcision + local excision + scrotal island flap, Penis buried under the scrotum, One-step pedicled scrotal flaps, One-step pedicled scrotal flaps + rotated prepuce, split -thickness skin graft, rotated scrotal flaps + transpositioned femoral skin flaps. In the postoperative period, some patients required a second surgical intervention for presenting skin necrosis and another for urethral injury. At the end of therapy, most cases (91%) were satisfied with the result.⁹

It should be taken into account that 1 in 5 patients who have presented complications have required psychiatric care, as in our patient.

For a successful treatment, the ideal is to identify and extract the infiltrated substance, before it causes complications.¹⁰ Unfortunately, these types of patients go to medical attention when they already have serious complications. Depending on the case of the patient, it should be analyzed and acted on, as is the case of our patient, with great deformation a large amount of fibrous tissue has already been generated, we prefer expectant treatment as the literature says to avoid reactivating the process of tissue aggression in the future and avoid a more extensive removal of tissue or that may later even require a penectomy. The measures to be taken are explained, and it is recommended that you first treat your psychological-psychiatric condition before starting any procedure; taking into account the risk benefit involved in performing a tissue removal in this patient.

CONCLUSIONS

Fillers have been used with increasing frequency throughout Latin America, both in women and men. The misuse of these substances, and ignorance of all the complications caused by iatrogenic allogenosis lead to complicated infections that can lead to severe sepsis and even death. Reason why health authorities should give more control to places where these procedures are practiced and prevent the use of these products that are not allowed.

The long-term consequences of this disease are physical, psychological and socioeconomic, mainly in developing countries where patients, with false expectations and hopes, are subjected to these procedures, generally by non-medical personnel, and who subsequently require a large number of

hospital care with a multidisciplinary approach; even in some cases, several surgical procedures are required, which leads to high public spending in each country.

As for the patients who seek a penis enlargement using this type of substances, it has been seen that it seriously influences the psychological-psychiatric aspect of the patient; reason why they are affected drastically in this aspect and their quality of life, often without being able to accept what happens to them, with damage to their self-esteem and ego, reason why they often opt for the self-lytic attempt, in some cases increasing the mortality.

The treatment is not at the established time, so a study defining a standardized treatment with good results is required. In some patients, several penile resection and reconstructive surgeries have been performed, which are mentioned as a possible solution, as long as the patient accepts their condition and the risks that may arise from surgical manipulation, considering that it could also be obtain a good aesthetic result and subsequent postoperative sexual satisfaction. It is an optional therapy that could be performed as long as the time elapsed from the application to the appearance of symptoms is minimal

ETHICAL RESPONSIBILITIES

Confidentiality of the data. The authors declare that they have followed the protocols of their workplace regarding the publication of patient data and that the study patient has received sufficient information and has given their written informed consent to participate in said study.

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