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Breast Augmentation by Vaseline Oil: A Case Report of Still a Dangerous Practice

Rémi Foissac*, Olivier Camuzard, Jonathan Fernandez, Thierry Balager and Bérengère Chignon-Sicard

Plastic-reconstructive and hand surgery unit, University Hospital of Nice, France

***Corresponding author:** *Rémi Foissac, Plastic-reconstructive and hand surgery unit, University Hospital of Nice, Hospital Saint Roch, 5 rue Pierre, France, Tél: 04.92.03.38.57; E-mail: remi.foissac@gmail.com*

Abstract

Injection of mineral oils for breast augmentation has disappeared in most developed countries for over 40 years because of major complications secondary to its infiltration in breast tissue. We present the case of a woman of 32 years old, who had received intramammary massive injections of vaseline oils 2 years ago with important breast pains. The management was surgical with excision of maximum of vaseline nodules and immediate reconstruction with a subpectoral implant covered up at its lower part by a desepidermised dermal flap. This devastating practice is still performed in some countries by unconscious persons and raises the complicated problem of breast reconstruction and monitoring. This case report remains that this practice should be considered in front of a patient with an unknown injection of volumizing substance in the breast. Partial subcutaneous mastectomy that preserves vaseline nodule close to the skin allows to avoid pitfall of secondary exposure of the implant. Evidence based-medicine: Level V

Introduction

At any time, some surgeons have been interested in the subcutaneous or deep injections of high-viscosity fluids for the restoration and improvement of body contour especially for the breast to avoid the invasiveness of surgical procedure and disadvantages associated with breasts implants [1]. Initially, mineral oil injections have been introduced in aesthetics procedures in the early twentieth century in order to correct nasal defects [2]. Although it became rapidly obvious that Vaseline oil was not as inert as initially anticipated, the subcutaneous injections of preparations containing mineral oil like vaseline remained popular as a cheap and fast alternative to conventional plastic surgery in some subcultures [3].

The apparent simplicity of these injections tends to disguise the major complications that can follow ranging from pain, scarring and deformity to infections with risk of breast amputations. In some countries of Eastern Europe, this practice that has disappeared in most developed countries for over 40 years is still practiced and patients come with a request of breast reconstruction and management of breast pains.

Case Report

The patient was a 32 years-old woman, from a Balkan country, that initially consulted in our service for bilateral breast pains. There was a notion of intramammary injections of unknown filler two years ago. In the medical history, she had noted that her breast presented seasonal changes with abnormal breast deformity during summer or when she has important fever. This clinical data guide us to injections of vaseline oil which has the property to liquefy at the melting point at near 40°C .At the clinical examination, the palpation revealed painful, multiple indurated nodules with a brown discoloration of the skin overlying (Figure 1). The patient was very anxious by breasts induration and possibility of a breast cancer. Imaging study was performed with a mammography that shows “droplets” dispersed inside the mammary gland. Magnetic Resonance Imaging (MRI) with conventional T1-weighted typically showed a wide distribution of fluid parenchymal collections. On fat-saturated T2 weighted there was the characteristic disappearance of the signal. The request of the patient was functional with these painful nodules, and aesthetics with the desire to have normal breast shape and consistency. After

Figure 1: Initial breasts aspect. Noted the deformation of breast shape with several areas of skin discoloration.

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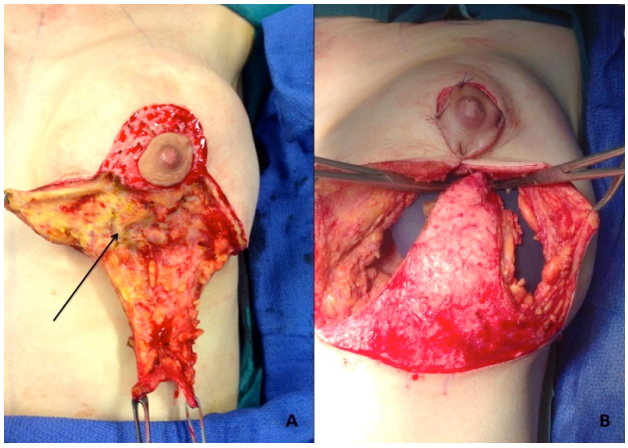

Figure 2: Surgical Management

A: Typical aspect of intra-parenchyma nodule of vaseline with yellow coloration (arrow) and liquefaction of the nodule with the heating of the electro cautery

B: Subpectoral textured round implant recovered by lower dermal flap.

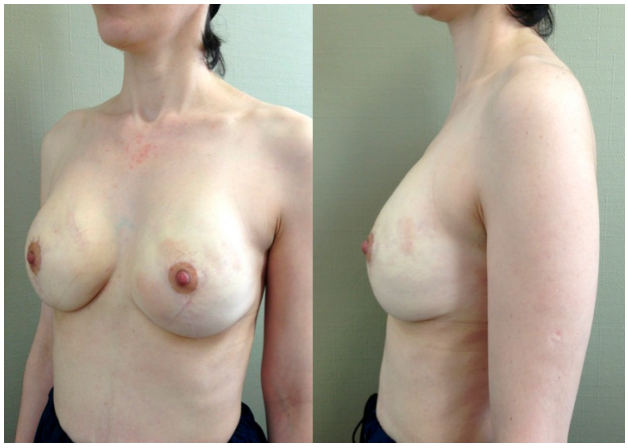

Figure 3: Long term result (2 years).

multidisciplinary concentration, a surgical management was proposed and consisted in resection of the majority of oil-infested areas without breast skin sacrifice. Intra-operatively, there was the typically liquefaction of the nodules when there were heated by electrocautery. The patient underwent immediate breast reconstruction including mastopexy with a superior pedicle flap and bilateral 325 cc silicone round implant. The implant was introduced into a subpectoral pocket and covered up at its lower part by a desepidermised dermal flap to minimise risk of exposition (Figure 2).

There were no intra-operative complications and an uneventful postoperative period.

At two years, the result was satisfactory with a diminution of breast pains and skin discoloration and restoration of a normal breast shape (Figure 3).

Discussion

Vaseline has advantage properties of neutral mineral oil. The principle was that inert, stable and non-irritating fluid, injected near the viscous state of its melting temperature and then cooled suddenly, would mold perfectly and remain inside the body at a solid form. It will represent the perfect filler with an inexpensive price [4]. From 1903, Lagarde noted that the melting point of vaseline is too low (40°C) as a high fever or significant sun exposure causes liquefaction and fragmentation product. However, despite the early description of adverse effects of these injections, they were used for decades. The first utilisation in aesthetic was for the treatment of nasal defects and then other cosmetic indications: filling of face wrinkles, breast and penis augmentation [5]. Typically, there is a latency period of up to 2 years during which the patient is asymptomatic and without apparent lesions changes [6]. Then, the first complications appear: breast induration, unsightly deformation, spontaneous pain and especially to palpation disturbing sexual activity, skin discoloration and ulcerations with possible fistulisation.

There are no therapies to modify the effects of injected fluids like vaseline and the repetition of liquefaction of the product lead to the aggravation of breast deformity with risk of skin fistulisation [7]. Patients often describe the sensation of a “stony breast”. The changes in the mammary gland secondary to Vaseline injections make it difficult to interpret clinical signs and mammograms. So the possibility of an early diagnosis of breast cancer can be reduced and the hypothesis of increased cancer risk is discussed. Thus, vaseline injections share the same complications and problems as for silicone free injections. Complete excision is never possible or will lead to a mastectomy with skin sacrifices.

Immediate reconstruction by a subpectoral implant is a validated technique in these complicated cases of injections of high-viscosity fluids [8]. It seems necessary to restore normal shape with an implant due to diminution and deformation of breast after nodules excision. Excision of maximum of vaseline nodules allow to relieve pain. Classically, the management for injection of these substances is still the same as subcutaneous mastectomy and reconstruction [9]. But subcutaneous mastectomy and extensive resection of nodule can lead to a very thin skin with a high risk of secondary exposure of the implant. So resection of vaseline oil must be cautious and should not be too superficial. It is more appropriate to use the term of partial subcutaneous mastectomy that should respect vaseline nodules close to the skin. The use of an inferior dermal flap is essential as it provides an additional coverage at the lower pole where the risk of exposition is important.

Rapidity of diagnosis and management can reduce morbidity by reducing the episodes of vaseline infiltration in soft breast tissue. The presence of lymphadenopathy reaction and the presence of vaseline in axillary lymph nodes is possible at an advanced stage. Prevention against breast warming is important for stabilisation of reconstructive results.

Other similar cases in our country have been reported and the patient told us that these injections are daily practice in her country. Women have few resources and unconscious people sell a cheap and non-invasive alternative for breast augmentation.

Conclusion

Injections of viscous fluids like vaseline oils for breast augmentation are still performed in some countries by unqualified and unscrupulous persons. These injections lead to major complications with the problem of breast reconstruction and monitoring. The treatment is always surgical and consists in partial subcutaneous mastectomy and immediate reconstruction with a subpectoral implant covered at its inferior part by a lower dermal flap. Success of surgical intervention is to respect vaseline nodule close to the skin.

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