American Journal of Oral and Maxillofacial Surgery
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Case Report

Adverse Effects of Injectable Facial Fillers: A Maxillofacial Approach to Management

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Abstract

Adverse effects of dermal facial fillers are increasingly posing a difficult treatment dilemma. Although broadly non-toxic synthetic fillers act as foreign bodies in the tissues eliciting a host response, even many years after administration. Adverse outcomes, ranging from chronic lymphoplasmacytic inflammatory reactions to granulomatous reactions have been documented in the literature1. High aesthetic demands, lack of existing scars for access and unavailable treatment history can compound the difficulty. Furthermore, we are increasingly encountering adverse effects in patients treated outside the United Kingdom (UK). Here we present a case report demonstrating our experience in the management of these problems.

Keywords: dermal fillers; facial fillers; adverse effects

Received: November 28, 2016; **Accepted**: January 8, 2017; P**ublished**: January 18, 2017

Competing Interests: The authors have declared that no competing interests exist.

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Introduction

Facial rejuvenation with autologous fat has been documented in the literature since 1893[2]. Since then, synthetic filler materials have become widely available, and there now exists over one hundred types. Dermal fillers can be temporary or permanent, and are used to restore volume and fill wrinkles.
Fillers are made from purified animal dermal components such as collagen and hyaluronic acid, or synthetic materials such as poly-l-lactic acid and calcium hydroxylapatite[3]. A range of complications associated with dermal fillers have been reported in the literature and the media, including immediate complications (such as erythema, swelling, and itching), and later complications such as granulomatous reactions[4]. Reasons for these complications may include inappropriate placement of the filler, infections and hypersensitivity[4].

A survey conducted in 2012 by the British Association of Aesthetic Plastic Surgeons (BAAPS), found that 49% of surgeons who responded had treated problems with semi or permanent facial fillers. Of these cases, 84% required corrective surgery[5]. BAAPS also reported a rise in the range of 25-35% of the number of patients suffering complications after treatment outside the UK[5].
We present a case report demonstrating our experience in using surgical methods for successful treatment of the adverse effects of injectable dermal facial fillers.

Case report

A healthy thirty one year old lady presented to the maxillofacial team complaining of intermittent swelling, pain and erythema bilaterally on her face. These symptoms lasted approximately two days at a time and occurred every two to three weeks. There did not seem to be any triggering factors for these episodes. Seven years previously, the patient had had facial fillers injected bilaterally. The treatment had been carried out in the Middle East. On examination she was found to have tender masses at the injection sites, including a mass which obliterated the left nasolabial fold (Fig. 1). The lips had also been injected. Following clinical examination, she underwent Magnetic Resonance Imaging (MRI) scanning. Multiple foreign body deposits were noted, which were concluded to be consistent with synthetic silicone filler material (Fig. 1).

Fig 1 Clinical and radiographic appearances at presentation

The patient was diagnosed with infected dermal facial fillers. It was discussed with the radiology department, whether it might be feasible to remove the silicone material via ultrasound guided aspiration. However, aspiration techniques were not recommended due to the viscosity of the material on ultrasound. She was treated with non-steroidal anti-inflammatory drugs, and received filler removal via a facelift approach (Fig. 2). The right and left sides of the face were debrided individually.

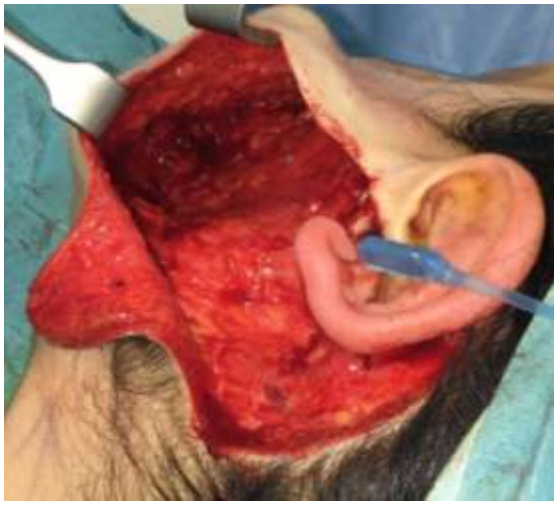

Fig. 2 Facelift approach

The patient has had no further episodes of swelling, pain or erythema of the face, and was discharged (Fig. 3).

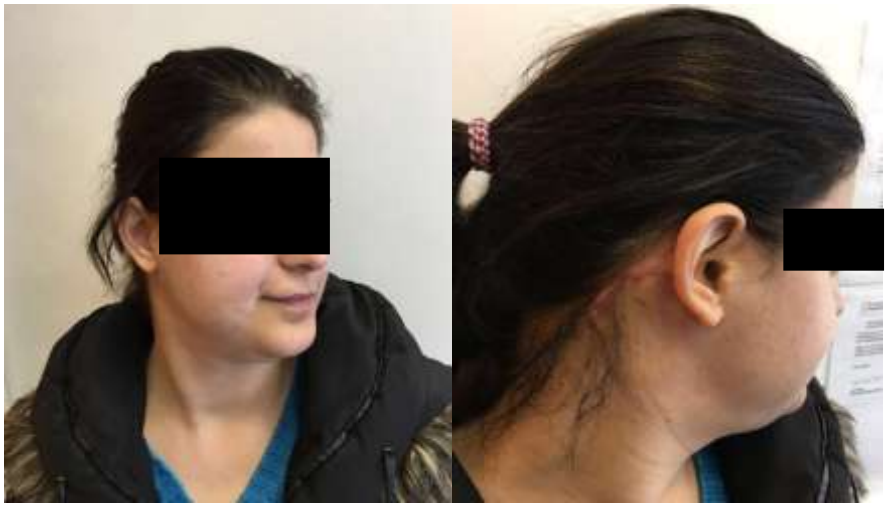

Fig 3 Clinical appearance post operatively.

Discussion

The adverse effects of dermal facial fillers are well documented, and patient morbidity is rising. In the UK the administration of dermal facial fillers has no minimum training requirements, is available without prescription, and product quality checks remain insufficient. The Department of Health have called the adverse effects of dermal fillers 'a ticking time bomb' and 'a crisis waiting to happen'[6].

This case illustrates our experience in a facelift approach for debridement of dermal facial fillers. There are many other management techniques documented in the literature, including incision and drainage of fluctuant abscesses, antibiotics, and the use of intralesional steroids[1,3]. The advantages of this approach are to minimise visible scarring whilst allowing excellent access to affected areas for debridement. The risks include damage to facial nerve leading to temporary or permanent facial paralysis. In our experience, good aesthetic results are achieved with this technique.

Conflict of Interest

We have no conflict of interest

Ethics statement/confirmation of patient's permission

The patient has given permission.

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