

Lipofilling Technique For Facial Lipoatrophy Secondary to Lupus Profundus: A Case Report

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Abstract

Lupus profundus is a rare clinical form of cutaneous lupus erythematosus, often affecting the face and causes unsightly atrophic persisting scars, despite remission of the dysimmune process. The authors report here a case of major sequelae of lupus profundus treated by lipofilling.

Key words: Lupus panniculitis; Lipofilling; Subcutaneous atrophy.

Introduction

Lupus panniculitis (LP) is a rare and benign form of lupus erythematosus. However, it can be the cause of disabling aesthetic damage. Autologous fat transfer or lipofilling is a technique whose indications are often aesthetic. Autologous fat is the reference "volumizing" product. It is usually present in large quantities. It provides a more lasting effect than that obtained with synthetic products [1].

Case report

This is a 48-year-old woman who was treated for lupus cutaneous since the age of 27 years with hydroxychloroquine.

Physical examination found atrophic subcutaneous lesions located on the left side in the temporal, malar and laterojugal region and in the temporal region and the entire jugal region on the right side while sparing the nasolabial fold. The patient also had an erythematous indurated patch on the forehead and patches of alopecia.

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There was no facial paralysis, no bony deformity in the temporal region, no malocclusion, no arthritis, and no oral ulcers.

Following the request for correction of the aesthetic sequelae, the authors opted for lipofilling. Abdominal liposuction was performed according to the Coleman technique: 150 ml of fat were removed through a 2-mm incision under the umbilicus using a 2.5-mm cannula. The tissue was centrifuged at 3000 rpm for 3 minutes. Then, the fat cells were injected using a 1.5 mm foam-headed cannula. The increase in subcutaneous fat volume was immediately noticeable with a slight overcorrection. There were no complications, and the aesthetic result was very satisfactory after a six-month delay.

Discussion

The atrophic scars of lupus panniculitis are responsible for significant aesthetic damage with a potentially impacting patients' quality of life.

Lipofilling is a well-established technique widely used in facial rejuvenation and iatrogenic lipoatrophy [2,3]. It is also effective in treating atrophic scars that result from permanent alterations in subcutaneous adipose tissue during lupus panniculitis. The absence of any signs of lupus relapse or post-surgical complications in the short and long term is encouraging. In this case, it seems safer to perform it in patients with stable disease [4]. Nevertheless, it is essential that surgeons have a thorough knowledge of

vascular anatomy, as some cases of irreversible blindness have been reported [5].

The fat donor areas are infiltrated with adrenalized saline (1% solution) using a lumbar puncture needle or, in the case of larger quantities, with a Klein cannula. Each surgeon performs the sampling according to his own technique. The fineness of the fat particles is crucial and depends on where the fat will be injected and the injection plane [6,7].

Before it can be used, the fat sample is processed. Three methods can be used to separate adipocytes from blood products: centrifugation, decantation, and washing with greater efficiency is achieved with protocols using manual aspiration, gentle centrifugations, and washing steps [8].

Injection of fat particles is usually done with blunt-tipped cannulas to avoid vascular-nervous trauma after skin puncture with a 21 G or smaller needle depending on the size of the cannula. These cannulas with blunt tips are of variable shape, diameter, and length. The injections are made according to the retro-trace method in triangulation which implies at least two separate injection points. All planes of space are usually involved, with injections starting deep and then progressively going up to the surface [9,10].

In this case, the sample was taken using a 2.5 mm cannula. The tissue was centrifuged at 3000 rpm for 3 minutes. Then, the fat cells were injected using a 1.5 mm foam-headed cannula.

On the other hand, several lipofilling sessions may be necessary at intervals of a

few weeks to avoid overcorrection of the defect or to inject too large a volume increases the risk of necrosis of the injected

adipocytes due to insufficient diffusion of oxygen and nutrients [11].



Figure 1: Before (right) and after (left) photos 6 months after Lipofilling.

Conclusion

Lupus panniculitis is a relatively rare condition that causes Facial Lipoatrophy.

After controlling the initial inflammatory process, lipofilling appears to be an effective, simple, inexpensive, and rapid treatment for a major complication of lupus panniculitis.

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