



The Surgical Lips Deformity Corrected with Hyaluronic Fillers: A Case Report

Dragan Stolic¹, Maja Jankovic¹, Marija Draskovic², Slobodan Georgiev³, Marina Stolic^{1*}

¹Medica Aesthetica, Belgrade, Serbia; ²Faculty of Medical Sciences, University of Kragujevac, Serbia; ³Dentaes, Skopje, Republic of Macedonia

Abstract

Citation: Stolic D, Jankovic M, Draskovic M, Georgiev S, Stolic M. The Surgical Lips Deformity Corrected with Hyaluronic Fillers: A Case Report. OA Maced J Med Sci. <http://dx.doi.org/10.3889/oamjms.2015.067>

Key words: Lip; hyaluron; implant.

***Correspondence:** Marina Stolic, MD, Resident Plastic Surgery, Medica Aesthetica, Belgrade, Serbia. E-mail: dmarinamajkic@gmail.com

Received: 07-Apr-2015; **Revised:** 01-Jun-2015; **Accepted:** 02-Jun-2015; **Online first:** 02-Jul-2015

Copyright: © 2015 Dragan Stolic, Maja Jankovic, Marija Draskovic, Slobodan Georgiev, Marina Stolic. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

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

BACKGROUND: Hyaluronic filler is a sterile, biodegradable, viscoelastic, isotonic, transparent injectable gel implant which was approved by Food and Drug Administration (FDA) 1996. It is used for face reconstruction and modelling.

CASE PRESENTATION: We report the case of a 40-year-old Serbian woman who presented after surgery of cleft lip, primary and secondary palate. We performed a biphasic therapy; in the first stage in the zone semimucosis lips is initially carried incision scar tissue. The second stage is placed hyaluronan implant.

CONCLUSION: This case illustrates that, although hyaluronic fillers used mainly for correction of healthy tissue can be successfully used in the treatment of postoperative scars.

Introduction

In recent years there has been a growing interest in surgical procedures for facial rejuvenation. Hyaluronic acid is currently the most widely used dermal filler for the treatment of facial wrinkles [1]. Hyaluronic filler is a sterile, biodegradable, viscoelastic, isotonic, transparent injectable gel implant which was approved by Food and Drug Administration (FDA) 1996. It is used for face reconstruction and modeling. Aesthetic indications for lips are qualitative changes - shape, quantitative changes- size and biorevitalisation of lips, and reconstructive indications are asymmetry of lips, scars (postoperative, accidental, postinflammatory) and incompetent lips. The dermal fillers show an excellent tolerability and preservation of the dermal cells and matrix components [2].

Over the last decade, injectable soft tissue fillers have become an integral part of facial plastic surgery practice. The vast choice of new products

being brought to the market, improved safety profile, lower costs in the current economic climate and high street availability mean that demand for nonsurgical rejuvenation treatments are increasing at an exponential rate and are no longer the preserve of the affluent [3].

We report a case of use of hyaluronic acid for the correction of postoperative scars after surgery cleft lip, primary and secondary palate.

Case presentation

We report the case of a 40-year-old Serbian woman who presented after surgery of cleft lip, primary and secondary palate. She was born with palate shisis, lip shisis and nose deformity. She had more surgical interventions in order to take care of cleft palate.

Patient was admitted to the Aesthetic Education Center Medica Aesthetica in Belgrade, Serbia for aesthetic treatment after surgery. After clinical examination and specifying the desired look with a patient, correcting the application is accessed hyaluronic fillers. Preparing patients included the provision of short-term local infiltrative 2% lidocaine - epinephrine (lidocaine 40 mg/2 ml + epinephrine 0.025 mg/2 ml) plexus anesthesia, local anesthesia terminal branches of the mandibular nerve and disinfection of the operating field. We used a cross-linked hyaluronic acid (sodium hyaluronate) in the form of a gel concentration of 18.5 mg/g with the addition of antioxidants (mannitol) STYLAGE Special Lips, VIVACY laboratories, originating in France. Hyaluronic Filler is a non-animal origin, sterile and non-pyrogenic, physiological pH and osmolality. For injection is used needle 30G thickness, length 13 mm factory packed with hyaluronic fillers. When patients were done soft tissue reconstruction of the oral region, the application of hyaluronic acid injection was administered retrograde linear and bolus technique. We performed a biphasic therapy in the first stage in the zone semimucosis lips is initially carried incision scar tissue. We applied incision fibrous tissue release adhesions. The second stage is placed hyaluronan implant linear retrograde technique and bolus technique whereby the injected 0.33 ml of material. In order to achieve the most natural-looking lips in accordance with the accepted average proportions lips were drawn contours and minimum compensation amount of lip volume of 0.5 ml hyaluronic fillers (Figure 1).



Figure 1: Lips patients before and after treatment with hyaluronic fillers

Discussion

Soft tissue augmentation with temporary dermal fillers is a continuously growing field, supported by the ongoing development and advances in technology and biocompatibility of the products marketed [1, 2]. The longer lasting, less immunogenic and thus more convenient hyaluronic acid (HA) fillers are encompassing by far the biggest share of the temporary dermal filler market [4-6].

The after multiple surgeries innate cleft palate, usually followed by corrective intervention of plastic surgeons. This requires hospitalization of patients, postoperative swelling and a longer recovery. Our patients wanted painless, comfortable treatment to correct the aesthetic defect. The case highlights the importance of proper injection technique, as well as the need for immediate recognition and treatment of similar scars [7]. The combination of treatments with fillers and surgical procedures may help process and provide more natural results than are possible with any of these techniques alone [8].

The HA dermal filler was associated with minimal discomfort, bruising or swelling of the lips; almost two-thirds of subjects (62%) returned to social engagements on the same day [4]. The high degree of subject satisfaction with aesthetic improvement in the lips, as well as the natural look and feel, indicates that this HA dermal filler represents an effective treatment option for patients requiring lip enhancement [9].

Injection of synthetic fillers for soft tissue augmentation is increasing over the last decade. One of the most common materials used is hyaluronic acid (HA) that is safe and temporary filler for soft tissue augmentation [7, 10]. It is imperative to any technique that direct, and preferably quantitative, feedback is given so that an immediate modification can be generated and successive patient outcomes improved [11]. Soft-tissue augmentation of the face is increasingly popular and the number of available filling agents has increased dramatically, improving the range of options for HA fillers. Meta-analysis proved both safety and efficacy for HA fillers [12].

Replacement fillers (such as the various formulations of HA) provide space-filling volume for a finite period of time [13]. Our expanding understanding of the physiological and immunological conditions of the skin and has prompted a growing field of aesthetic technology. Restorative procedures are taking advantage of improved and refined biotechnology, which continues to evolve at a rapid pace. Whereas surgical correction of skin laxity was the norm in years past, there are now many topical options available, and an ever-growing, increasingly perfected depot of minimally invasive, injectable dermal volumizers and stimulators, collectively

referred to as dermal fillers [14]. Use of dermal and subdermal fillers for facial rejuvenation has become popular because these treatments provide desirable aesthetic outcomes such as a harmonious, attractive appearance without invasive surgical procedures and without the downtime associated with surgery. While no procedure is free from risk to the patient, the appropriate use of fillers is generally associated with lower risk and less downtime compared with surgery [15].

In conclusion, this case illustrates that, although hyaluronic fillers used mainly for correction of healthy tissue can be successfully used in the treatment of postoperative scars.

References

1. Park KY, Kim HK, Kim BJ. Comparative study of hyaluronic acid fillers by in vitro and in vivo testing *J Eur Acad Dermatol Venereol.* 2014;28(5):565-8.
2. Tran C, Carraux P, Micheels P, Kaya G, Salomon D. In vivo bio-integration of three hyaluronic acid fillers in human skin: a histological study. *Dermatology.* 2014;228(1):47-54.
3. Bray D, Hopkins C, Roberts DN. A review of dermal fillers in facial plastic surgery. *Curr Opin Otolaryngol Head Neck Surg.* 2010;18(4):295-302.
4. Philipp-Dormston WG, Hilton S, and Nathan M. A prospective, open-label, multicenter, observational, postmarket study of the use of a 15 mg/mL hyaluronic acid dermal filler in the lips. *J Cosmet Dermatol.* 2014; 13(2): 125–134.
5. Kontis TC. Contemporary review of injectable facial fillers. *JAMA Facial Plast Surg.* 2013;15(1):58-64.
6. Glogau RG. Fillers: from the past to the future. *Semin Cutan Med Surg.* 2012;31(2):78-87.
7. Ali M, Behrooz B, Amir M, Zahra SH, and Shokoofeh AM. Nasal Alar Necrosis Following Hyaluronic Acid Injection into Nasolabial Folds: A Case Report. *World J Plast Surg.* 2015; 4(1): 74–78.
8. Sadick NS, Manhas-Bhutani S, Krueger N. A novel approach to structural facial volume replacement. *Aesthetic Plast Surg.* 2013;37(2):266-76.
9. Cartier H, Trevidic P, Rzany B, Sattler G, Kestemont P, Kerrouche N, Dhuin J. Perioral rejuvenation with a range of customized hyaluronic acid fillers: efficacy and safety over six months with a specific focus on the lips. *J Drugs Dermatol.* 2012;11(1 Suppl):17-26.
10. Monheit G1, Kestemont P, Sundaram H. Hyaluronic acid fillers on the horizon: roundtable discussion. *J Drugs Dermatol.* 2012;11(8):s26-8; discussion s28.
11. Iorio ML, Stolle E, Brown BJ, Christian CB, Baker SB. Plastic surgery training: evaluating patient satisfaction with facial fillers in a resident clinic. *Aesthetic Plast Surg.* 2012;36(6):1361-6.
12. Huang X1, Liang Y, Li Q. Safety and efficacy of hyaluronic acid for the correction of nasolabial folds: a meta-analysis. *Eur J Dermatol.* 2013;23(5):592-9.
13. Fitzgerald R, Graivier MH, Kane M, Lorenc ZP, Vleggaar D, Werschler WP, Kenkel JM. Nonsurgical modalities to treat the aging face. *Aesthet Surg J.* 2010;30 Suppl:31-5.
14. Carruthers J, Cohen SR, Joseph JH, Narins RS, Rubin M. The science and art of dermal fillers for soft-tissue augmentation. *J Drugs Dermatol.* 2009;8(4):335-50.
15. Rhee do Y1, Won CH, Chang SE, Noh TK, Kim MS, Kim BJ, Park GH, An JS, Lee MW, Choi JH, Moon KC, Lim SH. Efficacy and safety of a new monophasic hyaluronic acid filler in the correction of nasolabial folds: a randomized, evaluator-blinded, split-face study. *J Dermatolog Treat.* 2014;25(5):448-52.