Journal of Dentistry and Dental Medicine

Dermal Filler and Dental Implant Correlation

Yifat Manor[1,2]
Doron Haim[3]

[1,2]Department of Oral and Maxillofacial Surgery, The Maurice and Gabriela Goldschleger School of Dental Medicine, Tel-Aviv University and senior physician at the Department of Oral and Maxillofacial Surgery, Isac Shamir Medical Center Zriffin, Israel
[3]Head of the Dental Division & Dental clinic Isac Shamir Medical Center Zriffin, Israel

Abstract

Hyaloronic acid is used widely for as a dermal filler for soft tissue augmentation. It may be injected to the perioral region by dental practitioners. Dental implantation is a common procedure in the dental practice. The article describes a case of dental implant failure following dermal filler injection and describes the possible reasons.

Keywords

Hyaloronic acid; Dental implant; complications

Hyaluronic acid (HA) fillers have been the material of choice for soft tissue augmentation in the last decade. Injection of dermal fillers has become very popular due to the fact that many patients seek facial rejuvenation avoiding surgery. Although they are considered safe, adverse reactions and complications could develop in the subsequent months or years following this treatment [1,2]. In the literature, in the hands of experienced physicians, hyaluronic acid can be safely used as a filler, although complications, such as bruising and necrosis, may occur and need to be managed promptly [2-4]. For example, prior to facial dermal filler injection, the patient should report on presence of dental pain and dental problems treated recently. It is known that active dental infection might lead to infection of the dermal filler and vice versa. In the literature there are few case report regarding infection of the filler with an odontogenic origin [5].

In the present case report we describe a case of a dental implant failure following facial dermal filler injection into the nasolabial fold. Although the failure rate of dental implant failure is rare it might happen in 2-4% of the cases [6]. In this case that developed; during the operation the cause for dental implant failure seemed to be the filler injection.

A 44 year old healthy woman underwent dental implantation and bone augmentation in a dental clinic performed by an expert in oral and maxillofacial surgery. The dental implants were inserted in the posterior lower jaw bilaterally and also in the right upper premolar area. In the lower jaw the healing process was uneventful and the implant had complete osseointegration. In the right upper premolar area something went wrong. Although uneventful healing during the first 3 weeks postoperatively a fistula developed in the gingiva above the implantation area one month postoperatively opposite to the area in which the HA filler was injected. No pain nor pus secretion was found. The hyaloronic acid area injected in the nasolabial fold bilaterally, 10 day before. X rays did not reveal the cause of the fistula and a surgical exploration was performed. During the exploration the implant was found to be disconnected from the alveolar bone without primary stabilization and had to be removed. The defect bone area healed without bone resorption and re implantation was performed 2 months later. The patient was instructed not to inject dermal fillers for 3 months postoperatively. The implant was exposed 6 months later and showed satisfactory osseointegration.

It is suggested that the filler injection interfered with the healing and osseointegration of this area.The injection of the hyaloronic acid as a filler to augment the nasolabial fold is oriented into the canine space which isbounded by the maxillary bone, caninus muscle and the insertion of the levator muscles of the superior lip. It may be assumed that injection of such a material in some cases subperiostally might interfere the healing process of the dental implant leading to local infection and inflammation and lack of osseointegration. The logic for this assumption is the sudden appearance of a gingival fistula following the dermal filler injection and completion of the soft tissue healing process. Two possible explanations are straightened by the fact that reimplantation of a new implant in the same place without interference of dermal filler injection was followed by the implant osseintegration.

It is suggested that patients undergoing dental implantation or bone augmentation should be warned not to have a dermal filler injection close to the area in the immediate

Article Information

DOI:	10.31021/jddm.20181105
Article Type:	Short Communication
Journal Type:	Open Access
Volume:	1 **Issue:** 2
Manuscript ID:	JDDM-1-105
Publisher:	Boffin Access Limited
Received Date:	September 23, 2017
Accepted Date:	November 05, 2017
Published Date:	January 05, 2018

Citation: Yifat Manor, Haim D. Dermal Filler and Dental Implant Correlation. J Dents Dent Med. 2018 Jan; 1(2):105

*Corresponding author:

Dr. Yifat Manor, DMD, Lecturer
Department of Oral and Maxillofacial Surgery
Maurice and Gabrielle GoldShleger School of Dental Medicine
Sackler Faculty of Medicine
Tel-Aviv University, Tel-Aviv, Israel
Tel no: 972-50-8560114
Tel no: 972-8-9404727
E-mail: yifatmanor@gmail.com

postoperative period in order to prevent complications at least for three months.

References

1. Beasley KL, Weiss MA, Weiss RA (2009) Hyaluronic acid fillers: a comprehensive review. Facial Plast Surg 25: 86–94. doi: 10.1055/s-0029-1220647
2. Schütz P, Ibrahim HH, Hussain SS, Ali TS, El-Bassuoni K, et al. (2012) Infected facial tissue fillers: case series and review of the literature. J Oral Maxillofac Surg 70: 2403-2412. doi: 10.1016/j.joms.2011.11.014.
3. Weinberg MJ, Solish N (2009) Complications of hyaluronic acid fillers. Facial Plast Surg. 25: 324–328. doi: 10.1055/s-0029-1243081
4. Palmieri B, Monaco M, Capone S (2010) Complications caused by using facial fillers. Dermatological Experience 2: 1–11.
5. Ramzi AA, Kassim M, George JV, Amin A (2015) Dental Procedures: Is it a Risk Factor for Injectable Dermal Fillers? J Maxillofac Oral Surg. 14: 158-160. doi: 10.1007/s12663-012-0398-y
6. Moraschini V, Poubel LA, Ferreira VF, Barboza E, dos S (2014) Evaluation of survival and success rates of dental implants reported in longitudinal studies with a follow-up period of at least 10 years: a systematic review. Int J Oral Maxillofac Surg. 44: 377–388. doi: 10.1016/j.ijom.2014.10.023