

GUIDED ULTRASSONOGRAPHY FOR STEROID INJECTION USED IN THE TREATMENT OF FIBROSIS AFTER SUBMENTAL LIPOSUCTION

Heloisa P. Dias, Katrini G. Martinelli, Camila O. P. Sales; Ana Paula L. N. S. G.
Brazilian Academy of Face



INTRODUCTION

The submentonian and submandibular areas are crucial for the overall harmony of facial appearance (O'RYAN, 1989). Submental fat affects facial harmony, impairs beauty, causes embarrassment, and may be associated with lower self-esteem and psychosocial well-being (O'RYAN, 1989). Therefore, restoring the facial harmony of a patient is one of the most important topics in orofacial specialization since 2019 (GARBON, 2019). Submental fat is considered a sign of facial aging, obesity or genetic condition. Which causes embarrassment, lowers self-esteem, confidence, and hinders social interactions, which can lead to health problems. (TAYLOR,2012). Submental liposuction has become an effective method for submentonian rejuvenation since 1981 (SOARES, 2020). This approach involves an extraction of fat from the fat tissue located between the platism muscle and the skin (SOARES, 2020). The procedure has been used to treat various kinds of physical and emotional stress associated with face and neck lymphedema in patients with head and throat cancer (TAYLOR,2012). Also, in patients known as pseudo-obese, who are individuals whose flácid faces give the impression of being obese (SOARES, 2020). The function of submentonian liposuction is to remove the fat near the lower surface of the underlying skin. Which results in lasting contours and changes (TAYLOR,2012).

Among the most common aesthetic procedures to improve the appearance of submental fat accumulation is liposuction (FRANCO,2012). According to the statistics of the American Society of Plastic Surgeons (ASPS), approximately 198,000 individuals underwent liposuction in the United States in 2009 (ASP,2020), making it the 4th most performed aesthetic procedure. Although this procedure is effective and has a favourable safety margin, early and late complications with various levels of severity such as the appearance of fibrosis in the region can occur (FRANCO,2012).



Most of the adverse effects are temporary, but in some exceptions, they can cause deterioration of the aesthetic aspect of the patient and dissatisfaction (SOARES, 2020), causing damage and/or psychological shock in the face of frustration with their appearance, and can lead to repair of the damage by professional civil liability (SOARE, 2020).

Therefore, it is of the utmost importance that the professional has confidence in making decisions when carrying out such procedures and attention to the limit of his duties as a dentist-surgeon. In this sense, it is necessary to use ultrasound techniques to assist the professional in the diagnosis and treatment for intercurrentence such as the emergence of late fibrosis. Despite the popularity and high efficiency of the method in the diagnosis of almost all anatomical areas, ultrasound is still underestimated in cosmetic surgery of the face and neck. Thus, this work was aimed at treating post-liposuction submandibular fibrosis with the use of ultrasound-guided corticosteroid injection.

OBJECTIVE

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METHODOLOGY

Female patient, 46 years old, Brazilian, single, resident in the city of Guarapari, ES, sought the Brazilian Academy of Face, having as an initial complaint submentonian fat. Mechanical liposuction was carried out by the tumescent technique, used since the 1980s, being considered safe and with few side effects. After the delimitation of the area, anesthesia was performed with Klein's solution consisting of an anesthetic (lidocaine 40 ml), adrenaline (2 ml) to contract the capillary vessels with the aim of reducing blood loss, 100 ml of physiological serum and 10 ml of sodium bicarbonate to 10%. Through of duckbill canula was carried out the breakdown of the fat for subsequent suction with mercedes canula, coupled to a vacuum. Were performed movements to go and back for aspirate the layer of fat. Shortly thereafter, the patient was advised on post-operative care, such as the use of bandage for 7 days and use of compressive bandage of tissue for a period of 30 days, rest of 3 days and avoid excessive physical effort. Depending on the edema appearance's and haematomas at the area, the use of compressor band for one week was indicated. After 30 days, the patient showed palpable right submandibular nodule, hardened, painless, without heat, without redness. The ultrasound examination was carried out on equipment of the brand SAEVO, model EVOS 5, SP, for diagnostic purposes, delimiting the size and depth of the fibrous area. With cannula 22G, sub-incision of this region was carried out by removing all adhesion from the skin to the fibrous tissue, prior to the application of diluted triancinolon (injection of 1ml of Triancinolon + 1.5ml of sterile physiological serum + 0.5ml of anesthetic mepivacaine without vasoconstrictor). 2ml of the mixture was applied in place in each session, with an interval of 7 days between the sessions, totalling 5 sessions. All the treatment sessions were attended by the ultrasound device guiding the procedure, so that the medication was deposited at the exact location of fibrosis.

RESULTS AND DISCUSSION

The procedure liposuction of fat in the neck region has been improved in recent decades; however, like any other surgical procedure, this is not exempt from complications. In this sense, ultrasound has become an indispensable tool in case of treatment for intercurrentence, as it is a high resolution imaging method specific to evaluate soft tissues and can provide a variety of information before, during and after clinical procedures. (ROCHA et al., 2020).

Figure 1 shows the result of the photographic recording of a fibrosis, 30 days after the procedure and liposuction in the submandibular region. After 5 sessions of treatment with triancinolon guided by ultrasound the patient showed considerable decrease in fibrosis and reduction in the measure of the injury, perceived in the re-evaluation of the photos, inspection and palpation Figure 1-b.

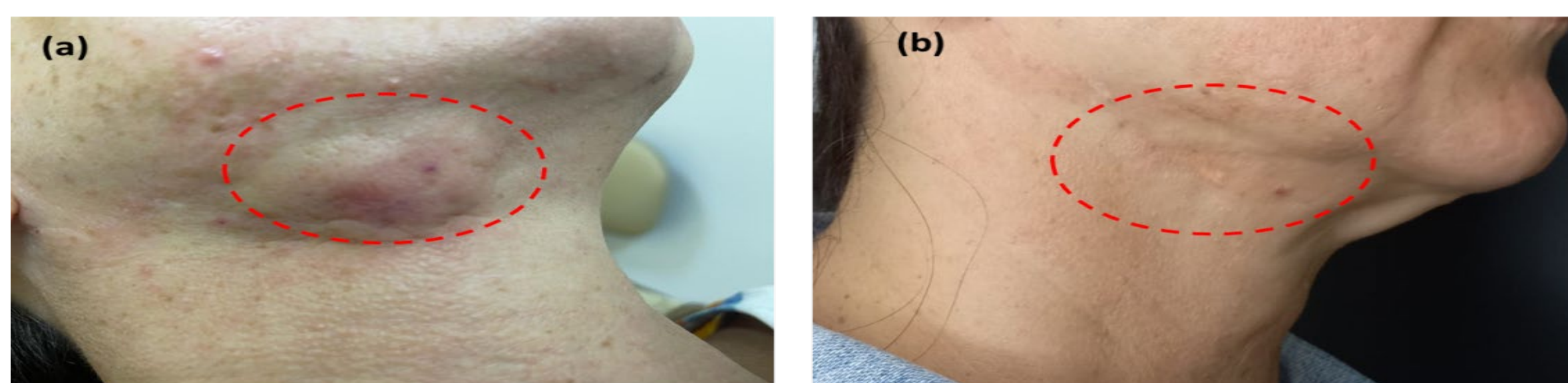


Figure 1 : (a) Before Ultrasonic Guided Corticosteroid Treatment. (b) After Ultrasonically guided Corticoid Treating

Figure 2 shows the result of ultrasound (Ultrasound of the cervical region with doppler) showing an image before treatment with triancinolon. Figure 2-b shows the ultrasound image after 2 sessions of triancinolon treatment. It is possible to notice that the depth and size of the fibrous area have been reduced. Figure 2-c shows the result of ultrasound imaging after 5 sessions of triancinolon treatment. Through this result it is possible to observe that the depth and size of the fibrous area had a reduction of approximately 50% compared to the initial ultrasound image.

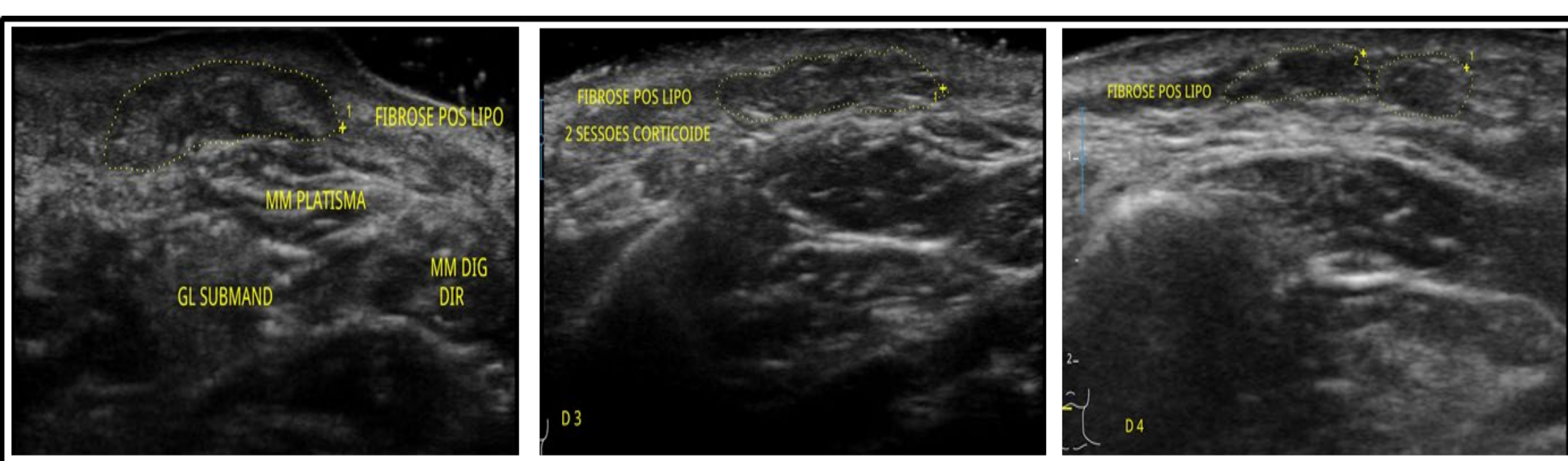


Figure 2: (a) Ultrasonic imaging of the soft tissues of the lower face and submandibular area with a linear transducer. 30 days after liposuction procedure. (b) After treatment with two corticosteroid sessions. (c), 60 days after treatment with corticoid.

In this regard, Cruz and collaborators in a clinical case on the importance of the ultrasound imaging examination, for the screening of facial fillers. In the study in question a female patient, 57 years old, sought dental care to make facial harmonization with mouth filling (chest), a month later complained of a globular mass in the submentonian region. Ultrasound examination was used to determine whether or not there was hyaluronic acid slide.

Through the results obtained was identified, at the USG, a solid image hypoecic. Knowledge of facial fillers ensured the professional to rule out the possibility of migration of hyaluronic acid. Thus, the authors were able to conclude that the use of ultrasound examination was crucial to confirming that the facial filler, hyaluronic acid did not slip (CRUZ, 2021).

Figure 3a-d shows the results of photographic records after treatment of submandibular fibrosis using ultrasound-guided triancinolon injection. It is possible to notice that the patient's facial harmony has been restored and that the treatment has been effective. Since the previously detected nodule has become imperceptible to the clinical examination, corroborating with the hypothesis that the use of ultrasound at the time of performing the procedure of injection of the corticoid is essential since it increases the effectiveness and accuracy in the treatment of this type of intercourse.



Figure 3: Photographic record of (a) Front of the Face (b) Front Of The Neck (c) Right Side of The Face (d) Left Side Of The Face.

CONCLUSION

Submental fat liposuction is a highly effective procedure when well indicated and executed accurately. Thus, the use of ultrasosund as a tool to help the professional with the effects resulting from the posoperative period, such as post-liposuction submandibular fibrosis, has been shown to be quite effective. However, the risks and treatments associated with this procedure still need to be studied and understood in more detail.

REFERENCES



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