

## The Induction Of Lipolysis Using The Machine Of O.F.F (Bags Under The Eyes) And The Application Of Needle Shaping Technique Using The Vibrance Machine (Tear Through)

Tsioumas G. Sotiris <sup>1\*</sup>, Chorozeidis Ioannis <sup>2</sup> & Zografaki Irini<sup>3</sup>

<sup>1</sup>Private Clinic,  
Diagnostic Clinic and Aesthetic Surgery Ophthalmology,  
Eye Surgeon - Oculoplastic  
President of Hellenic Society of Aesthetic Medicine and Non Invasive Surgery,  
Greece.

<sup>2</sup>Private Clinic,  
Dermatologist-Venereology

<sup>3</sup>Plastic and Reconstructive Surgery Department,  
(Plastic Surgeon)  
Hospital St. Sava,  
Athens, Greece.

Accepted 2 January 2014

### ABSTRACT

The induction of lipolysis using the machine of O.F.F (Onde Flusso Frazionato) and the application of Needle Shaping technique using the Vibrance machine, as well as, the evaluation of their efficacy for face-appearance improvements purposes, such as improving the appearance of bags under the eyes of patients (O.F.F method) and restoring tear through (Vibrance method). According to the study, patient needed eight sessions over four months, each session every 15 days. The method used provides reliable results, giving the patient the option to avoid surgery.

**Keywords:** Vibrance, Needle Shaping, OFF, lipolysis, bags under the eyes, tear through.

### Introduction

Needle Shaping is the only microsurgery technique which is able to perform a subcutaneous micro trans-plant and at the same time a bio stimulation, by Prof. Giorgio Fippi (Lecturer of Non Ablative Surgery SIMENCA). With this microsurgery technique, it is possible to increase the volume of the lips, the cheekbones and sunken scars without injecting any kind of material or chemical. This is an autotransplantation of tissue by traction, though it might be more appropriate to speak of it as an acupuncture, through which high tension and limited galvanic current is applied. The mixed currents, strengthened by their synergic action, regulated at such intensity so as to not be perceived by the patient, except in particularly sensitive parts, slightly dehydrate the elastic fibres of the derma and this way they hook onto the needle and principally bind to each other creating a lasting effect. At this point, they delicately wound up into a sort of spindle of autologous material which is visible when moving the needle. The traction exercised must be such as to obtain a certain volume of fibres without these tearing. Liquids are eliminated by osmosis due to the saline deprivation caused by the currents to prevent the fibres and the collagen from unwinding.

O.F.F is an electromedical apparatus that uses sinusoidal wave with a fixed frequency of 1230 kHz fractional flow of emission. This frequency was chosen because it produces a series of biological effects that are perfectly suitable for treating a great variety of skin blemished otherwise not treatable by other apparatuses. This same frequency is used for both therapeutic ultrasound and for radiofrequency, but in this case only one

active electrode is used without the relative earth, departing thus from the effects of ultrasound and radio frequency. We only use the thermal effect of this programmed flow current to selectively increase the temperature of the tissues without the earth electrode the programmed electric currents supplied by the O.F.F radiate along the external surface of the treated body. This apparatus is totally autonomous from electric mains and this makes it handy to use and not subject to routine service annually.

### *How is the phenomenon explained?*

"To explain the phenomenon whereas thinned down tissues regains their initial volume, one just needs to refer to the "derma-expander", a sort of balloon that the surgeon inflates under the skin of the patient to obtain tissue to transplant, removing it with the technique of the diamond patch. The donor part in this case, though it will regain its original thickness, will bear the scar from its surgical removal. With Needle Shaping you don't get scars nor depressions since the subcutaneous volumes moved are tiny and there's no tearing or removal of material, thus the result looks extremely natural. Important results can be obtained by sliding the skin material by means of an electric device, without introducing any kind of substance, but by exploiting the same tissues which, being homologous, are not absorbed nor rejected, they do not cause cordons or red swellings. Truly final are the results that concern the correction of depressed scars and the volume of the parts not subjected to stimulation of the facial expression muscles. For example, in the case of volume increase of the lips or cheekbones, the results are extremely

**Corresponding Author:** Tsioumas G. Sotiris<sup>1\*</sup>

Private Clinic, Diagnostic Clinic and Aesthetic Surgery Ophthalmology, Eye surgeon - Oculoplastic, President of Hellenic Society of Aesthetic Medicine and Non Invasive Surgery, Greece..

Email address: s\_tsioumas@hotmail.com

long lasting, in the region of many years. With regard to expression lines instead, even if some can disappear for good, usually they return after a few months or years depending on

the facial expressions of the patient. Generally speaking we can say that they require more sessions and often, there is a need for a touch up after a few months.



Source: Dr. Tsioumas G. Sotiris



Source: Dr. Tsioumas G. Sotiris

### **Purpose of the study**

The purpose of this study is to present another alternative treatment for bag under the eyes and tear through except surgery so patients can avoid surgery and the side effects which follow after this.

### **Methodology**

#### **Sample description**

The sample consisted of 14 patients. 11 of them were female (79%) and three of them male (21%).

4 of the patients presented small bags under the eyes and small tear through (29%). 8 of them presented medium bags under the eyes and medium tear through (57%) and 2 of the patients had significant sized bags under the eyes and significant tear through (14%).

#### **Duration of treatment methods**

One session every 15 days over the course of four months. (8 sessions per patient in total).

### **Medical Equipment**

Acupuncture needles sized 18 x 15 and 20 x 18 were used and disposed for both the induction of lipolysis using the method of O.F.F and the application of needle shaping technique. Plus the appropriate device for each method was operated by the same doctor through the whole process.

### **Result/Findings**

Following the treatment, the patients were asked to evaluate the outcome of the procedure. All four of the patients that experienced minor problems reported full satisfaction with the results. In the second group (medium sized bags and tear through), 4 reported full satisfaction, 2 reported good results and the last 2 asked for further treatment. As far as the third group (significant sized bags and tear through) is concerned, all patients reported average results.

Before



After 1 treatment Needle &amp; O.F.F



Source: Dr. Tsioumas G. Sotiris

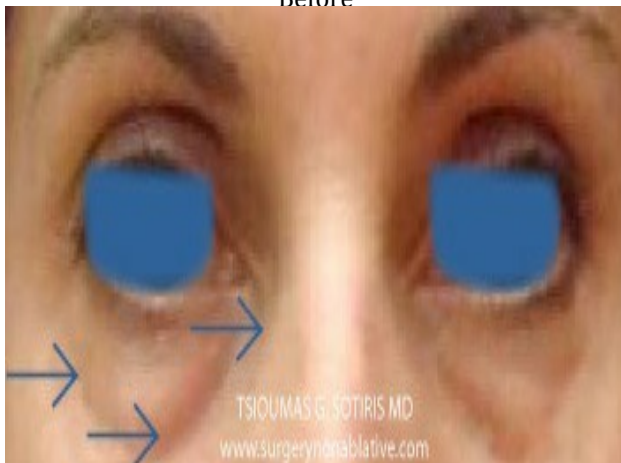
### Further treatment

As soon as the basic treatment of each patient ended (8 sessions) the doctor proposed further treatment sessions and one patient decided to proceed to surgery and one decided to continue the current treatment. The doctor also proposed Blepharoplasty, a bloodless operation for perfect results in order to manage any excess skin.

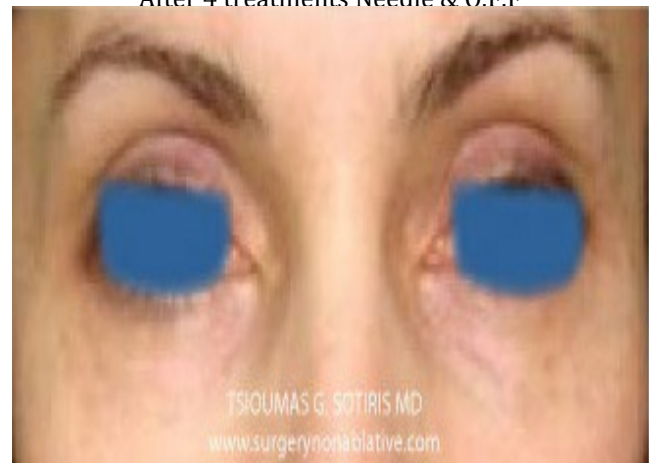
### Conclusion

The needle method had satisfying results for every patient in the area of tear trough and its application does not pose any risk to the patient vision or eye sight being compromised. The O.F.F needle provide reliable results even for patients experiencing significant problems. The method is bloodless, pain free and without the need of stitches. It gives the patient the option to avoid surgery.

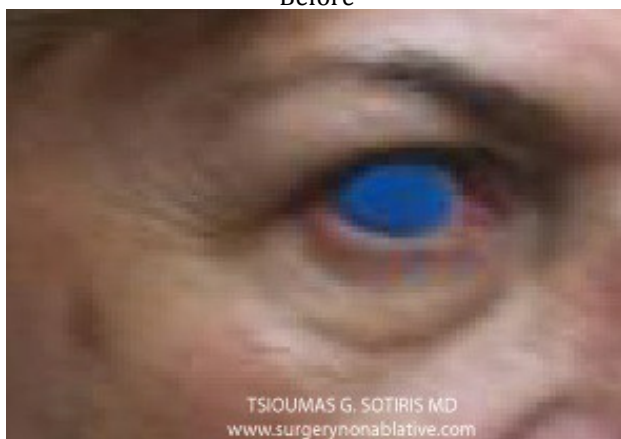
Before



After 4 treatments Needle &amp; O.F.F



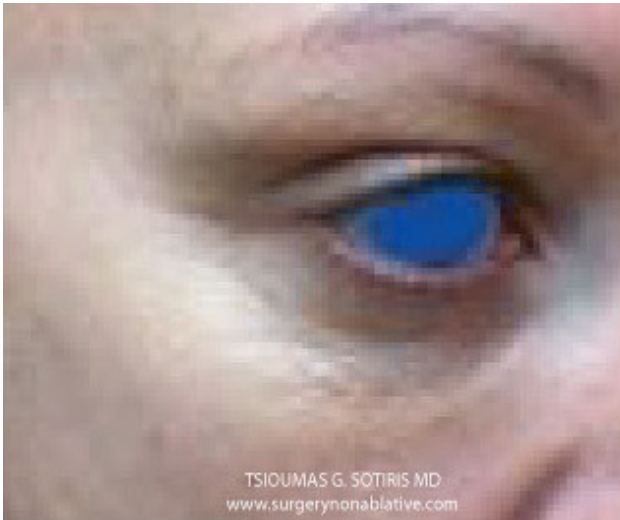
Before



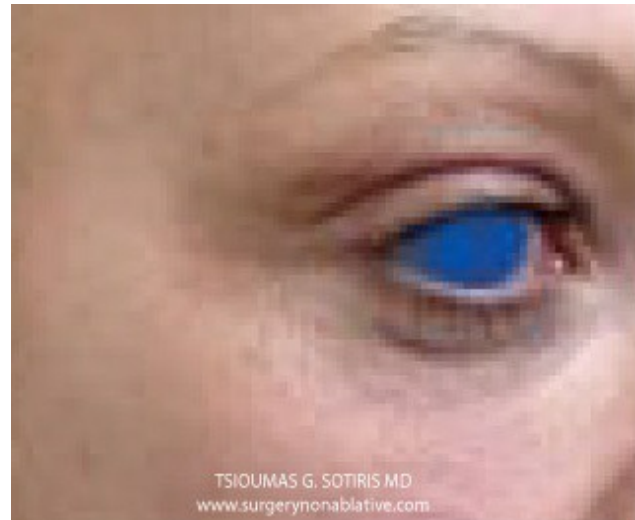
After 2 treatments Needle &amp; O.F.F



Before



After 1 treatment Needle &amp; O.F.F



Source: Dr. Tsioumas G. Sotiris

## References

1. [www.fippi.net](http://www.fippi.net)
2. [www.felc.it](http://www.felc.it)
3. [www.chirurgianonablative.it](http://www.chirurgianonablative.it)
4. [www.youtube.com/watch?v=xhoDOxpLqrY](http://www.youtube.com/watch?v=xhoDOxpLqrY)
5. [www.youtube.com/watch?v=1Qxr94GKkmM&list=UUAqCsEajwgYjM3uxlh-6MQQ](http://www.youtube.com/watch?v=1Qxr94GKkmM&list=UUAqCsEajwgYjM3uxlh-6MQQ)
6. [www.ofthalmoplastiki.gr](http://www.ofthalmoplastiki.gr) [www.youtube.com/watch?v=Rsc1iyt-bKQ](http://www.youtube.com/watch?v=Rsc1iyt-bKQ)
7. [www.youtube.com/watch?v=FI9fnjcfLHk](http://www.youtube.com/watch?v=FI9fnjcfLHk)
8. [www.youtube.com/watch?v=j4H0ZBTeNdQ](http://www.youtube.com/watch?v=j4H0ZBTeNdQ)
9. Sung B, Kim SH, Lee JK, Lee BC, Soh KS. Electromechanical method coupling non-invasive skin impedance probing and in vivo subcutaneous liquid microinjection: controlling the diffusion pattern of nanoparticles within living soft tissues. *Biomed Microdevices*. 2014 Aug
10. Bjōrklund S, Ruzgas T, Nowacka A, Dahi I, Topgaard D, Sparr E, Engblom J. Skin membrane electrical impedance properties under the influence of a varying water gradient. *Biophys J*. 2013 Jun 18
11. Hirobe S, Azukizawa H, Matsuo K, Zhai Y, Quan YS, Kamiyama F, Suzuki H, Katayama I, Okada N, Nakagawa S. Development and clinical study of a self-dissolving microneedle patch for transcutaneous immunization device. *Pharm Res*. 2013 Oct;30(10):2664-74. doi: 10.1007/s11095-013-1092-6. Epub 2013 Jun 18.
12. Huang X, Cheng H, Chen K, Zhang Y, Zhang Y, Liu Y, Zhu C, Ouyang SC, Kong GW, Yu C, Huang Y, Rogers J A. Epidermal impedance sensing sheets for precision hydration assessment and spatial mapping. *IEEE Trans Biomed Eng*. 2013 Oct;60(10):2848-57. doi: 10.1109/TBME.2013.2264879. Epub 2013 May 31.49.
13. Birgersson U, Birgersson E, Nicander I, Ollmar S. A methodology for extracting the electrical properties of human skin. *Physiol Meas*. 2013 Jun;34(6):723-36. doi: 10.1088/0967-3334/34/6/723. Epub 2013 May 29.
14. Birgersson U, Birgersson E, Nicander I, Ollmar S, Szele'nyi A, Journe'e HL, Herrlich S, Galistu GM, van den Berg J, van Dijk JM. Experimental study of the course of threshold current, voltage and electrode impedance during stepwise stimulation from the skin surface to the human cortex. *Brain Stimul*. 2013 Jul;6(4):482-9. doi: 10.1016/j.brs.2012.10.002. Epub 2012 Oct 27.