ABSTRACT
LASER STIMULATION ON ADIPOCYTES AND STEM CELLS (ASC): IMPROVING OUR FACIAL REJUVENATION
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Background:
Facial Aging is caused by changes compromising the SMAS, Platysma, Skin and Facial Adipose Tissue. Currently, Facial Rejuvenation treatments imply to correct, reposition and replenish the hypertrophic or lax tissues to obtain more natural results, but considering less traumatic techniques and with short-term recovery periods. Less invasive surgeries are possible through the assistance of modern techniques in conjunction with new and adequate technology.

Materials and Methods:
In 2010, we incorporated to our practice the use of a new Laser wavelength: 1210-nm. Its advantage as a surgical instrument resides in its great affinity/absorption by adipose tissue.

Results:
This is the first wavelength that does not produce lysis, furthermore, it preserves the adipocytes and stimulates the adipose-derived stem Cells (ASC). This wavelength also stimulates skin retraction in two points in time: a) Immediate effect; as it thickens the dermis. b) Late effect (3 months); after stimulating collagen production.

Fat Grafts are widely spread nowadays as face fillers, but the most important difference we obtain is stimulation of ASC on our injecting material. What we acquire is not only a increase in volume but an important improvement in the quality of the neighbouring tissue of our graft.

The considerable skin retraction caused by the use of the 1210-nm wavelength, allows us to diminish the dissection of the facelift’s grafts on the cervical level. The low complication levels presented on our Lipolaser technique permits us to use this technology with safety in the face, cheeks and cervical area.
Conclusions:

The use of this new Laser wavelength (1210-nm) that preserves and stimulates Adipocytes and ASC is considered a safe, convenient and adequate tool for our facial rejuvenation treatments, as it offers us a better grafting/filler material and an important skin retraction with less trauma, making it possible to associate our short-scar facelift with less dissection.

Key words: Laser stimulation, laser 1210-nm, fat preserving, adipocyte stem cell.

References: