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SEFFILLER® RATIONALE

A number of studies have recognized adipose tissue as one of the tissues with the highest concentration of adult mesenchymal stem cells (ADSCs), in particular in its stromal component (SVF Stromal Vascular Fraction). The proven regenerative capacities of mesenchymal stem cells (ADSCs) are exploited in numerous medical branches such as reconstructive surgery, dermatology, vulnology, orthopedics, vascular surgery, cardiology, gynecology, otolaryngology and proctology, as well as in antiaging therapies in the field of Surgery and Aesthetic Medicine.
This method must have the following characteristics:

- make tissue harvesting as little traumatic as possible for the tissue itself;
- collect the adipose tissue in the most possible superficial plane, to obtain a tissue richer in terms of mesenchymal stem cells (ADSCs);
- harvest cell clusters containing adipocytes, stromal tissue (SVF) and mesenchymal stem cells (ADSCs) of reduced size, to favor their engraftment in the recipient site;
- minimal manipulation of the removed tissue, to maintain the greatest possible cellular vitality and avoid the use of tissue fragmentation devices, thus making the method faster and less expensive;
- reduce the patient's trauma to the minimum and diminish harvesting complications such as hematomas, seromas, infections and skin irregularities;
- the tissue to be implanted must be fluid enough to be grafted with fine needles or microcannulas, so as to be as little traumatic as possible for the recipient site. In preparing the tissue to be grafted, the HARVESTING part is the most critical for Doctors who do not have a specific preparation in suctioning subcutaneous adipose tissue. This issue very often leads Doctors to seek the collaboration of specialists in Plastic Surgery (thus increasing the procedure costs and making the organization of the therapy more complex, since it often requires several treatments) or to give up regenerative therapy, or expose the patient to possible complications related to incorrect harvesting maneuvers.

S.E.F.F.I. and MicroS.E.F.F.I. tissue graft (Superficial Enhanced Fluid Fat Injection)

Since 2015 A. Gennai et al. have been publishing several studies (see references) about the new tissue graft techniques **S.E.F.F.I.** and **MicroS.E.F.F.I.**. These techniques aim at grafting adipose tissue including the stromal vascular fraction (SVF) and Adipose Derived Stem Cells (ADSCs) contained therein, in order to achieve a skin enhancement and volume restoration of the face. The Authors proved that, using special cannula with very small side ports holes, the adipose tissue can be harvested so as to select small cellular clusters that don't need any kind of manipulation in order to fluidify the tissue.
SEFFI and MicroSEFFI are now among the most used techniques addressed to regenerate the skin and restore the volume for facial rejuvenation.
These techniques are considered as minimally invasive surgical procedures; hence they require surgical skills and surgical facilities.
In the light of this evidence the Regenerative Therapy has always been only in the hands of surgeons and not open to aesthetic physicians or dermatologists.
Dr. Gennai strongly believes that the Autologous Regenerative Therapy should be performed also by Doctors even without any liposuction skills. For this reason, he developed, standardized and patented* a special guide intended for harvesting the tissue in a safe, easy, effective way without any liposuction skill.
From this original idea SEFFILINE developed SEFFIHAIR®:
it's an all-in-one and disposable medical device to allow all doctors to perform the autologous regenerative hair loss treatment in their facility in a safe, easy, effective way.

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Treatment with the SEFFIHAIR® medical device involves the autologous and homologous graft of the Vasculo Stromal component (SVF) of the adipose tissue selected with the SEFFI (Superficial Enhanced Fluid Fat Injection) technique. Numerous scientific papers have demonstrated the efficacy of regenerative therapy with SVF and ADSCs in the treatment of androgenetic alopecia; recent studies have also shown efficacy in alopecia areata.

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*Italian patent

SEFFILLER® MEDICAL DEVICE

It provides Aesthetic Doctors who want to perform regenerative therapy with a kit that makes the procedure of harvesting, preparation and grafting SIMPLE, SAFE, FAST, EFFECTIVE and ECONOMIC.

SAFE

The kit is disposable, so it reduces the risk of contamination and disease transmission. The patented guide makes tissue harvesting safe, even for doctors without any specific experience in subcutaneous adipose tissue suction.

EASY

Our patented guide allows Doctors - even without a specific experience in aspirating subcutaneous tissue - to suction the tissue in the correct plane, thus minimizing the risk of carrying out maneuvers that could harm the patient.

FAST

The medical devices are disposable and all-in-one, without the need for external equipment such as aspirators. The procedure can also be performed under local anesthesia even on an outpatient basis. It requires minimal tissue manipulation. All this simplifies and reduces the procedure duration.

EFFECTIVE

The patented medical device “guides” the harvesting procedure in the correct superficial plane, where the maximum concentration of mesenchymal stem cells (ADSCs) occurs. Furthermore, the harvesting cannula selects cellular clusters of minimum size, reducing the need for subsequent manipulation and thus preserving maximum cellular viability. The small size of the cell clusters favors engraftment and allows grafting with small needles or cannulas in the surface plane, promoting the regenerative effect and decreasing the trauma of the recipient site.

ECONOMICAL

SEFFILINE® medical devices, being disposable and all-in-one, make the procedure extremely economical, as it can also be performed in the doctor’s facility, under local anesthesia, without the collaboration of a surgeon expert in the adipose tissue suctioning.

The SEFFILLER® treatment can be combined with other Aesthetic Medical procedures such as botulin treatment, filler, peeling, laser resurfacing, threads, needling etc.

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