THE ROLE OF AUTOLOGOUS FAT TRANSFER

Hair Transplantation in Cicatricial Alopecia

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Hair Transplantation in Cicatricial Alopecia: The Role of Autologous Fat Transfer (2020) P. Tesauro, A. Trevisani, A. Gennai, A. Marliani, L. Clauser. INTERNATIONAL JOURNAL OF REGENERATIVE MEDICINE

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The purpose of this article is to prove the importance of autologous fat transfer (AFT) in scarring alopecia. We present a complete clinical report of 21 cases treated with a combined procedure of AFT and hair transplantation (HT) done in the last three years.
The main findings of this study are the constant, early and more predictable hair regrowth after the hair transplant done on a pre-treated scarring alopecia.

The study

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We present a complete clinical report of 21 cases treated with a combined procedure of Autologous Fat Tissue and hair transplantation (HT) done in the last three years.

Results

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Tissue regeneration through Autologous Fat Tissue can significantly improve hair growth in the area of scarring alopecia, underlining, once again, the tremendous potential of this approach. Future studies may need to be carried out.

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Research Article

Evaluation of the Number, Biophysical and Multipotent Characteristics of Adipose Derived Stem Cells Harvested by SEFFI Procedure and Interaction with Different Type of Hyaluronic Acids

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ABSTRACT

Background: Injection of autologous adipose-derived stem cells (ADSCs) and a stromal vascular fraction (VSF) into dermal and subdermal layers promises regenerative advantages by improving skin volume and rejuvenation. Injectable hyaluronic acid (HA) is a temporary dermal filler that, by improving skin hydration, reduces the appearance of fine lines and wrinkles, facial folds and creates structure and volume to the face and lips. This study combined the grafting of micro fragmented fatty tissue with the hyaluronic acid filler procedure, using three different types of HA.

Methods: Each sample of micro fragmented adipose tissue harvested using the superficial enhanced fluid fat injection (SEFFI) technique collected from 8 patients were equally divided into two specimens. One of these (EMU specimens) was emulsified by gently applying ten back-and-forth passages from one syringe to another to fluidify the tissue. The other one was not emulsified (Ctrl/NON-EMU specimen). Both EMU and NON-EMU specimens were divided into four aliquots: one served as control, and the others were combined with each of three tested hyaluronic acids. Afterward, we assessed the cellularity of mesenchymal phenotype (defined as the number of adherent cells with mesenchymal phenotype per milliliter of adipose tissue) and the *in vitro* capacity of differentiation in mesenchymal lineages.

Results: Despite low cellularity from emulsified samples combined with HA, isolated cells could grow and expand in culture, thus proving their proliferative ability, showing "good quality" in all conditions (Ctrl/NON-EMU, EMU, and combined with HA). The cells could differentiate towards mesenchymal lineages, express mesenchymal markers by flow cytometry analysis, and maintain their stemness potential.

Conclusion: The combination of emulsified harvested tissue with HA products can be exploited to counteract the loss of volume and skin aging of the human face and body. This approach to regenerative aesthetic treatment is a promising treatment for facial antiaging therapy.

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