The Use of Nanofat in Androgenic Alopecia. a Prospective Blinded Study

Presenter: Michelangelo Vestita, MD

Co-Authors: Angela Filoni, MD; Domenico Bonamonte, MD, PhD; Rossella Elia, MD; Giuseppe Giudice, MD

Affiliation: University of Bari, Bari

INTRODUCTION: The many proprieties of nanofat in regenerative and aesthetic surgery are just being discovered.^{1–3} The purpose of this study was to investigate the efficacy and safety of nanofat in androgenic alopecia.

METHODS: We enrolled 12 consecutive male patients affected with androgenic alopecia at our private practice. Patients were excluded if they were or had been under treatment with oral finasteride or laser or injectable treatment for hair regrowth in the previous 6 months. Patients under topical minoxidil (2% or 5%) were given a wash out period of 60 days. Each patient was given a single injection session of nanofat, following the microbolus technique over the interested areas of the scalp. One area was selected as control and was not treated. The nanofat was obtained from the liposuction aspirate using the Tulip NanoTM kit device and immediately after it was injected in the treated scalp area. Each patient underwent trichoscopy of the sample marked area and a thricogram examination at baseline, and then 1, 3, 6 and 12 months after treatment by a blinded physician. A patient satisfaction VAS score was also recorded at the post-treatment visits. Adverse events were recorded at each follow up.

RESULTS: Each treated area in every patient showed an increase in number and thickness of hairs at the trichoscopy examination, superior to the control area, starting at the 3 months follow up and partially persisting at 12 months. The patient satisfaction VAS increased significantly, from the 6 months-follow up on.

DISCUSSION: Many therapeutic solutions for androgenic alopecia fail or deliver temporary improvement⁴. Our experience indicates a significant and enduring response (up to 12 months) to treatment with a single session of nanofat in androgenic alopecia in male patients. At 12 months the results partially persisted in 6 cases; the other 6 recurred. Considering that these patients were treated with a single session of nanofat and were not under any other treatment for androgenic alopecia these results are indeed notable. No adverse events were recorded during our observation. This is a pilot study based on a limited cohort and with no control group. Controlled studies will be needed in order to validate our preliminary results.

Reference Citations:

1.Tonnard P, Verpaele A, Peeters G, Hamdi M, Cornelissen M, Declercq H. Nanofat grafting: basic research and clinical applications. Plast Reconstr Surg. 2013; 132: 1017–1026.

2. Banyard DA, Sarantopoulos CN, Borovikova AA, et al. Phenotypic Analysis of Stromal Vascular Fraction after Mechanical Shear Reveals Stress-Induced Progenitor Populations. Plast Reconstr Surg. 2016; 138: 237e-247e.

3. Alexander RW. Biocellular Regenerative Medicine: Use of Adipose-Derived Stem/Stromal Cells and It's Native Bioactive Matrix. Phys Med Rehabil Clin N Am. 2016; 27: 871–891.

4.Kelly Y, Blanco A, Tosti A. Androgenetic Alopecia: An Update of Treatment Options. Drugs. 2016; 76: 1349–1364.

Camouflage of Scarring Alopecia By Using Follicular Unit Transplantation

Presenter: Nuh Evin, MD

Co-Authors: Osman Akdag, MD; Mehtap Karamese, MD; Zekeriya Tosun, MD

Affiliation: Selcuk University, Konya

INTRODUCTION: Scarring alopecia usually results from trauma, burn and previous surgery in the aesthetic units of head and neck.^{1,2,3,4}Various treatment options that anti-scar ointments, laser treatments and scar revisions surgeries have been used for treatment of these scars. However, it is difficult to destroy the existing scar with these treatment methods; it is not possible to treat alopecia. In this study, we present our result about the camouflage of the scarring alopecia with follicular unit transplantation in the head and neck area.

METHODS: Between 2015 and 2016 years, 27 patients who were treated for scaring alopecia after 13 trauma (4 scalp, 2 sideburn, 3 eyebrows