



Nanofat with Prp for facial volume restoration and tissues regeneration – Personal experience.

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Abstract:

Introduction: Autologous fat had been used as filler in various augmentation and contour correction procedures by using the lipofilling property of adipocytes. In 2001, Zuk et al. introduced multipotent progenitor cells called adipose-derived stem cells (ADSCs), which are present as stromal vascular fraction and CD34+ sub-fraction. The study of Tonnard et al. in 2013 had proven that mechanically emulsified autologous fat also called as nanofat retains the regenerative potential because it is rich in adipose-derived stem cells (ADSCs) and Stromal vascular fraction (SVF). These cells act through paracrine signaling by synthesizing immunosuppressive and pro-angiogenic factors. They are of key importance with regard to the regenerative properties of autologously grafted adipose tissue (AT).

Platelet rich plasma is an autologous blood product by a selective removal or exchange of either packed red blood cells, leucocyte-rich or platelet-rich layers, or plasma, with a continuous flow blood separator machine.

Material and Methods: Fat harvesting is performed in the same moment of the PRP preparation. I harvest fat tissue in the abdominal region using some specific cannula, with diameters of 2 to 3 mm and 1.5 mm, for grafting (Coleman Kit, Tucson, AZ). The harvested fat was emulsified and transferred into 1-mL Luer-Lock syringes for injection into the subdermal or intradermal plane.

PRP preparation consisted in a slow centrifugation (using centrifuge at 1100g for 10 min) from a small volume of blood (18cc); platelets remain suspended in the plasma, while the leukocytes and erythrocytes are displaced to the bottom of the tube.

Assessment were made by digital macro-photographs (Nikon D7100, 12.0 megapixels, AF-5 micro nikkor 60 mm, close-up 4D - 62mm + Nital Macro Lighting Spi-



der), Vectra H2® (Canfield Scientific, Wood Hollow Road, Parsippany, NJ 07054, United States) and Antera 3D® (Miravex Limited, 11 St. Stephen's Green, Dublin 2, Ireland).

Results: 320 patients that received nanofat with Prp for facial volume restoration and tissues regeneration from 2010 to 2018 were reviewed.

Biography:

Prof. Antonino Araco is a Plastic and Aesthetic Surgeon. He is the medical and scientific director at Jenevi Medical, leading Italian company of aesthetic and cosmetic surgery. He is contracted professor at University Tor Vergata of Rome and contracted professor at University of Camerino. He is a scientific researcher and author of more than 60 papers published in international indexed journals in the field of plastic surgery and regenerative medicine. He is an international speaker and gives lectures in the field of plastic surgery, regenerative medicine and lasers.

Publication of speakers:

1. Sack DA, Sack RB, Nair GB, Siddique Ak. Cholera lancet 2004; 363(9404):233-233
2. Chan NP, Shek SY, Yu CS, Ho SG, et al. Safety study of transcutaneous focused ultrasound for non-invasive skin tightening in Asians. Lasers Surg Med 2011; 43:366-75

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