

## **Centrifugation and Stromal Vascular Fraction Separation are not the Key Factors in the Success of Autologous Fat Grafting and Successful fat grafting despite lignocaine toxicity to adipocytes**

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**U**nderstand the literature around the toxicity of lidocaine to adipocytes. Demonstrate the techniques used to measure harvested volume and successfully grafted fat.

Introduction:

The literature strongly suggests that lidocaine is toxic to adipocytes. Tumescence anesthesia is commonly employed by dermatologists when harvesting fat for grafting. Three dimensional scanning can accurately measure even small volume changes in the face and body. Volumetric studies of fat grafting in the Dermatologic surgery literature are sparse.

This prospective study was designed to study the relationship between volumes of grafted fat and successfully grafted fat present at three months when harvested and grafted in the presence of tumescence anesthesia. Methods: A single centre, prospective study followed a single cohort of patients seeking fat grafting. All patients were photographed before and at three months post fat grafting. Volumes were measured before and after the procedure. Results Sixty patients were enrolled. The median volume of successfully grafted fat at 3 months was 82% with a range of 35% to 164%. Complications were minimal and involved bruising and minor discomfort.

Conclusions:

Despite published evidence of toxicity of lignocaine to adipocytes, the use of lignocaine based anesthesia in the harvesting and placement of fat can be successfully achieved.

### **Biography**

Dr Salmon is an academic Dermatologic Surgeon, he has over 60 papers published in the Peer-Reviewed Literature, skin cancer and reconstruction. As recognition of his international standing, last year he was awarded Honorary Fellowship in the Australasian College of Dermatology. For the last 20 years he has been a Chair or co-chair at the world congress of dermatology meetings on topics of skin cancer, Mohs surgery and reconstruction. He has been a guest presenter on reconstruction of the nose at the American College of Mohs Surgery meeting on several occasions, this is a singular honour especially for a non-American and cements his status as a globally recognized master of facial reconstruction. He continues to teach reconstruction through his Post-Doctoral Fellowship in Mohs and Cosmetic Surgery in New Zealand.

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Abstract received : March 02, 2024 | Abstract accepted : March 05, 2024 | Abstract published : 30-08-2024