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# SAFETY AND EFFICACY OF MESOTHERAPY IN THE TREATMENT OF LOCALIZED FAT DEPOSITS IN FILIPINO ADULT FEMALES: A RANDOMIZED DOUBLE-BLIND CLINICAL TRIAL

## BACKGROUND/OBJECTIVES

Mesotherapy has gain popularity as a method for body contouring and treatment of localized fat deposits.

The study aimed to determine the safety and efficacy of popular mesotherapy cocktails in the treatment of localized fat deposits in Filipino adult females.

## METHODS

Sixty healthy female subjects, aged 25-45 years, complaining of localized excess fat deposits on their upper arms were recruited to join the study. The subjects were randomized into **three** treatment groups with **20 participants each**. Group A received phosphatidylcholine and organic silicium (PC - OS); Group B received phaphatidylcholine, tiratricol and L-carnitine (PC+L), and Group C received the homeopathic formula **Omeoformula 1** (Guna S.p.a., Italy). The cocktails were prepared beforehand in identical 10 mL syringes. The method consisted of using a tuberculin syringe with a 30G½" needle to inject the cocktail into the subcutaneous fat of the postero-medial aspects of bilateral upper arms of the subjects, evenly distributing it over a 10x4 cm area; each injection distanced 2 cm apart using 0,2 mL per injection. The study was 8 weeks in length, and injection of the cocktails was done at weeks 1, 2, 3 and 4. the subject's mid-upper arm circumferences were measured at weeks 1, 2, 3, 4 and 8. The study participants underwent blood extraction at weeks 1 (baseline), 3 and 8 for determination of renal function (BUN, creatinine), liver function (AST, ALT, ALP), lipid profile (total cholesterol, triglycerides, HDO, LDL, VLDL), as well as a complete blood count with differential and platelet count. Cutaneous safety profiles, mainly injection site erythema and ain were assessed using a ten-point scale. Subjects were also asked to report any adverse events by answering a questionnaire during weeks 1, 2, 3, and 4. All Data were analyzed using Univariate and

Multivariate Analysis of Variance at a 95% confidence level. The end of trial data and all adverse events reported during the study were summarized, with frequency counts of severity and relationship to study treatment.

## RESULTS

The **PC-OS** and **Omeoformula 1** were found to be comparable in efficacy and were both superior to the PC+L formula in decreasing mid-arm circumference. There were no significant differences of abnormalities between treatments at different time intervals in terms of renal function, liver function, complete blood count, triglycerides, cholesterol and VLDL, but there was a significant increase in HDL and decrease in LDL at the end of treatment in all groups. Injection site pain was pruritus, and heaviness. Rare adverse events were axillary lymphadenopathy, severe oedema and erythema, steatorrhea, and post-inflammatory hyperpigmentation. Least adverse events were reported in the Omeoformula 1 group.

## CONCLUSIONS

Overall, mesotherapy is safe and effective in the treatment of localized fat deposits in Filipino adult females and appears to have some benefit in improving the HDL/LDL balance. ■

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