ACNE, ROSACEA, AND RELATED DISORDERS (INCLUDING HIDRADENITIS SUPPURATIVA)

# A COMPARATIVE STUDY OF EFFICACY AND SAFETY OF AUTOLOGOUS FAT GRAFTING VERSUS PLATELET RICH PLASMA IN THE TREATMENT OF POST ACNE SCARS.

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Introduction: Different treatment modalities have been used to treat acne scar with varying results. Platelet rich plasma ( PRP ) has become popular in dermatology for scar restoration. Autologous fat transfer has proven very useful in regenerative medicine.

Objective: To compare the efficacy of platelet rich plasma with autologous fat transfer for the treatment of atrophic acne scars.

Materials and Methods: A hospital based, comparative and interventional study performed after approval from Institutional Ethics Committee. Twenty patients were divided into two groups- ten in each group. Group A patients were treated by single session of scar subcision with autologous fat transfer. Group B patients received three sessions of subcision combined with intradermal autologous PRP treatments spaced by 1 month. All patients were followed up for 3 months. The outcome among the study subjects were assessed by digital photographs before and after treatment using Goodman and Baron's quantitative global acne scarring grading system, in addition to single-blinded physician assessment and by reports of patient satisfaction.

Results: In autologous fat transfer group, total number of scars ( quantitative assessment of scar ) decreased by 61.24%, whereas in PRP group, total number of scars decreased by 44.15%. Mean percentage of improvement showing significant difference between both groups ( p=0.015 ). Single blinded physician's assessment showed excellent response to treatment in 7 patients (35%) of which 4 belonged to autologous fat transfer and 3 belonged to PRP therapy. Six patients (30%) showed marked response of which 3 belonged to each group. Patient satisfaction was better in autologous fat transfer group as compared to PRP therapy. Side effects were minimal. All patients had sustained clinical improvement during follow-up period.

Conclusion: Autologous fat transfer provides significant clinical improvement in atrophic acne scar. It is a novel, safe, non- expensive, single session therapy with minimal downtime.