

DANIEL SISTER MD

PRP: PLATELET RICH PLASMA

THE NEW FRONTIER IN REGENERATIVE AND AESTHETIC MEDICINE

CO-WRITER
JEMMA PATTON



Officina Editoriale Oltarno

USING PRP TO TREAT ACNE

with vitamin C according to physician's assessment. Vitamin C did not prove to be as efficacious as PRP since 10 (37%) patients had poor response in the vitamin C treated area compared to only six (22.2%) patients who underwent PRP therapy, but vitamin C proved to be efficacious in dealing with post inflammatory hyper-pigmentation secondary to acne ($P = 0.021$). Patient assessment was recorded and they were more satisfied with PRP as compared to vitamin C ($P = 0.01$).

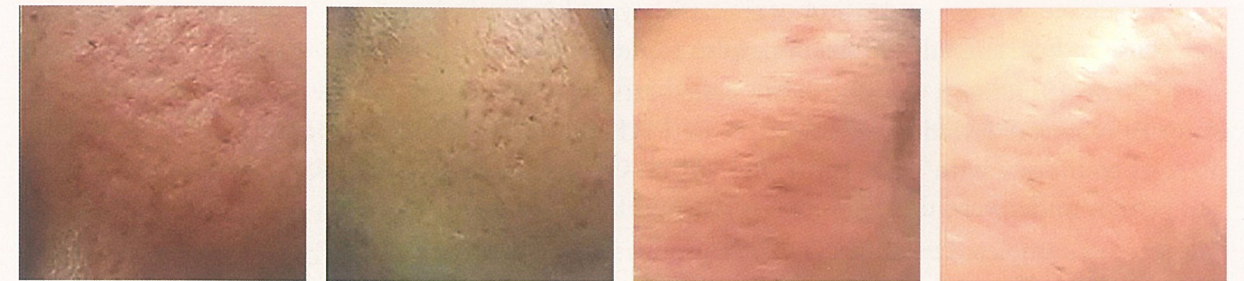
CASE 1
SERIAL PHOTOGRAPHS OF A 24 YEAR OLD MALE TREATED WITH DERMAROLLER AND PRP.



CASE 2
SERIAL PHOTOGRAPHS OF A 24 YEAR OLD FEMALE TREATED WITH MICRO-NEEDLING AND PRP.



CASE 3
SERIAL PHOTOGRAPHS OF A 25 YEAR OLD MALE TREATED WITH MICRONEEDLING AND PRP.



Images before show a patient with acne scarring before and after PRP treatment.
Images courtesy of: YcellbioMedical Co. Ltd Korea



Improvement of pore size and acne scar with PRP

Based on the fact that concentrated plasma may be beneficial in the treatment of atrophic acne scars by promoting collagen deposition Zhu in 2013 researched if by using a high concentration of trichloroacetic acid (TCA) could achieve a chemical reconstruction of skin scars to stimulate collagen production.

The objective was the evaluation of the efficacy and safety of intradermal injection of PRP, 100% focal TCA, and combined skin needling plus topical PRP in the treatment of atrophic acne scars.

A total of 45 patients with atrophic acne scars were randomly assigned to three equal groups; Group A received intradermal injection of PRP, Group B received chemical reconstruction of skin scars technique with TCA 100%, and Group C was treated by combined skin needling and PRP. Each patient underwent three sessions at two week intervals.

All patients completed the study. The three groups showed statistically highly significant improvement in the degree of acne scars after treatment ($p < .001$) without any major adverse effects in the studied groups.

Another study by Nofal et al aimed to evaluate the efficacy of autologous PRP combined with erbium fractional laser therapy for facial acne or acne scars. This combined treatment (PRP combined with erbium fractional laser) was used for the treatment of 22 patients, including 16 patients who suffered from facial acne scars and six patients who suffered from acne scars concomitant with acne.

Blood was collected from each patient and the PRP was harvested. After using an erbium fractional laser the PRP was applied to the entire face of every patient. Digital photos were taken before and after the treatment for evaluation by dermatologists and the patients rated the efficacy on a five point scale. The erythema was moderate or mild, while its total duration was <3 days; after receiving the treatment three times.

90.9% of the patients showed an improvement of $>50\%$, and 91% of the patients were satisfied; no acne inflammation was observed after treatment. Therefore the conclusion was that PRP combined with erbium fractional laser therapy is an effective and safe approach for treating acne scars or acne, with minimal side-effects, and it simultaneously enhanced the recovery of laser-damaged skin.

CASE 4

PATIENT WITH ACNE SCARRING.



*Images before show a patient with acne scarring before and after PRP treatment.
Images courtesy of: YcellbioMedical Co. Ltd Korea*