

ORIGINAL ARTICLE

A Comparative Study of PRP (Platelet Rich Plasma) Vs 35%Ga Peel in Acne Scarring

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ABSTRACT

BACKGROUND AND OBJECTIVES: To compare the efficacy of 35% Glycolic peeling and platelet rich plasma therapy in acne scars. **METHODS:** It is a single blind parallel comparable study to compare efficacy of 35% GA peeling v/s PRP (platelet rich plasma) in acne scar. All patients were divided in 35% GA peeling group 1 and PRP therapy group 2. **RESULTS:** Out of total 100 patients, 50 patients selected for PRP and 50 for GA peel. Pre-treatment mean score in PRP was 34.08 scars with standard deviation 13.82 after 6th sitting mean score reduced to 14.76 with standard deviation 5.49. For pre-treatment mean score in GA peel were 28.12 scars with standard deviation 11.14 after 6th sitting mean score reduced to 17.96 with standard deviation 8.32. **CONCLUSION:** We concluded that PRP therapy has a definite role in treating acne scar as compare to 35% GA peel.

Keywords: PRP (Platelet Rich Plasma) Vs 35%GA Peel in Acne Scarring

INTRODUCTION

Acne has a prevalence of 90% among all adolescent & persist in adulthood in approximately 12-14% of cases with psychological & social factors.¹⁻⁶ Scar is defined as the fibrous tissue that replaces normal tissue destroyed by injury or disease. Goodman’s qualitative global scarring grading system is a grading system that differentiate 4 grades according to scar severity.⁷⁻¹¹ Grade-1 macular disease, grade-2 mild, grade-3 moderate, grade-4 severe. Goodman’s global scarring system based on lesion counting (1-10, 11-20, >20) scar type (atrophic, macule, box scar, hypertrophic, keloidal) and severity (mild, moderate, severe).¹²⁻¹⁴

AIMS AND OBJECTIVES

TO compare the efficacy of 35% Glycolic acid and PRP (platelet rich plasma) therapy in acne scars.

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MATERIALS AND METHODS

It is single blind parallel comparative study to compare efficacy of 35% GA peeling vs PRP (platelet rich plasma) in acne scar. Out of 100 patients the study comprised 50 patients of acne scar and 50 patients of 35% GA peel.

Inclusion criteria¹³⁻¹⁶

Patients who come for regular follow up, Age group is between 15-40 years and who give verbal and informed consents were included in the study.

Exclusion criteria¹⁷

Patients who do not give consent, history of photo sensitivity and pregnant and lactating women not included in study.

OBSERVATIONS

Table 1: Age-wise distribution

Age groups (years)	Number of patients Of GA Peels (%)	Number of patients Of PRP Therapy (%)
15-19	12(24%)	6 (12%)
20-24	16(32%)	19 (38%)
25-29	13(26%)	10 (20%)
30-34	8(16%)	9 (18%)
>34	1(2%)	6 (12%)
Total	50 (n=50) (100%)	50 (n=50) (100%)

Majority of patients were belonging to 15-24 years age group (56%) with mean 24.14 years and standard deviation is 5.28 for 35% GA peel. For PRP therapy maximum numbers of patients were in age groups of

20-29 years (58%) with mean 26.5 and standard deviation 6.34. Maximum number of patients for acne scars is seen in younger age groups.

Table 2: Treatment Evaluation of 35% GA Peel

Lesions	Pre-treatment scar Number	Post treatment scar Number	Difference	Inference
1-10	0	14	14	Number of lesions significantly reduced after treatment
11-20	16	21	5	
>20	34	15	19	
Total	50	50	-	

Above table shows that in pre-treatment mean are 28.12 scars with Standard deviation 11.14 after application of treatment mean significantly reduced to 17.96 with Standard deviation 8.32. On application of Paired t- test p value is < 0.05 which means it is statically significant.

Table 3: Treatment Evaluation of PRP Therapy

Lesions	Pre-treatment scar Number	Post treatment Scar Number	Difference	Inference
1-10	0	9	9	Number of lesions significantly reduced after treatment
11-20	10	29	20	
>20	40	12	28	
Total	50	50	-	

In pre-treatment mean are 34.08 scars with Standard deviation 13.82 after application of treatment mean significantly reduced to 14.76 with Standard deviation 5.49. On application of Paired t- test p value is < 0.05 which means it is statically significant.

Table 4: Comparison of 35% GA peel Vs PRP Therapy

SR. No	35% GA peel		PRP therapy	
	Mean	SD	Mean	SD
Pre-treatment scar	28.12	11.14	34.08	13.82
Post- treatment scar	17.96	8.32	19.32	8.34
Difference	10.16	2.82	14.76	5.49

In comparison of 35% GA peel Vs PRP therapy, mean difference was markedly reduced in PRP therapy 14.76 as compared to 35% GA peel 10.16. On application of unpaired t-test p-value=0.004 which is less than 0.05 it means that PRP therapy is better for acne scars as compared to 35% GA peel.

CONCLUSION

Maximum number of patients for acne scars is seen in younger age groups.

According to sex wise distribution acne scars more prevalent in male and unmarried and with history of acne scars within 1-3 years (57%) followed by 25% in 3-5 years with mean 3.64 years and standard deviation 2.0. Distribution according to type scars, Box scar¹²⁻¹⁵ (40%) more seen in acne patients followed by Ice -pick (33%) then (14%) Rolling and (13%) was atrophic. According to Grade wise distribution, maximum number of patients were in Grade -2 (44%) followed by Grade -3 (34%) and Grade-1 (22%). 42% patients had moderate type of acne scars followed by 39% had severe and 19% had mild acne scars. Pre-treatment mean score in PRP was 34.08 scars with standard deviation 13.82 after 6th sitting mean score reduced to 14.76 with standard deviation 5.49. for pre-treatment mean score in GA peel was 28.12 scars with standard deviation 11.14 after 6th sitting mean score reduced to 17.96 with standard deviation 8.32. We concluded that PRP therapy has a definite role in treating acne scar as compare to 35% GA peel.

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