

Safety and Efficacy of Injectable Platelet Rich Fibrin with Fractional CO₂ versus Fractional CO₂ in post acne scars

- A split face study

Dr Kavya J Pillai¹, Dr Rashmi Mahajan², Dr. Neha Purohit³

Junior Resident¹, Professor & HOD², Assistant Professor³

INTRODUCTION

Acne vulgaris is a persistent inflammatory condition affecting the pilosebaceous unit.⁽¹⁾ Scarring is a common sequelae of Grade 3 and 4 Acne. There are several types of acne scars, including box, rolling, and ice pick scars. Injectable platelet-rich fibrin (iPRF), a second-generation platelet concentrate, has been created to improve growth factor release and eliminate anticoagulants due to concerns about hypersensitivity reactions.⁽²⁾

AIMS & OBJECTIVES

- To compare the efficacy of iPRF with Fractional CO₂ vs Fractional CO₂ alone in Grade 3 and 4 post acne atrophic scars
- To evaluate the side effects, if any, after undergoing iPRF with Fractional CO₂ vs Fractional CO₂ (FCL) alone in Grade 3 and 4 Post Acne scars

METHODS

- There were 15 adult patients with Grades 3 and 4 post-acne atrophic scars.
- Clinical images was taken at every visit with informed consent .and a quantitative Goodman and Baron score analysis was also conducted.
- Every patient received FCL as part of a split-face research with iPRF done on the right cheek and only FCL done on the left cheek. This was repeated monthly for 3 months with a 2-month follow-up after the 4th sitting.
- Post-procedure sunscreen and moisturizer application were advised. Side effects, if any, were noted. Results were analysed.
- Patients >18 years were included while excluding patients with active infection , platelet disorder and patients on corticosteroids, aspirin.

RESULT

Mean score at 5 th visit			Goodman and Baron Quantitative score					
RIGHT (iPRF + FCL)	LEFT (FCL)	P value	RIGHT (iPRF + FCL)			LEFT (FCL)		
			1 st visit (mean ± SD)	5 TH visit (mean ± SD)	P value	1 st visit (mean ± SD)	5 th visit (mean ± SD)	P value
6.66 ± 2.35	9.35 ± 3.56	0.013	12.46 ± 3.83	6.66 ± 2.35	<0.0001	12.06 ± 3.75	9.53 ± 3.56	0.0065



Fig.1: Goodman and Baron quantitative global scarring grading scale
 Upper: Before(13), After (7) , Right side FCL + iPRF
 Lower : Before (13), After (9), Left side FCL alone

Fig.2: Goodman and Baron quantitative global scarring grading scale
 Upper: Before(8), After (5), Right side FCL + iPRF
 Lower : Before (9), After (8), Left side FCL alone

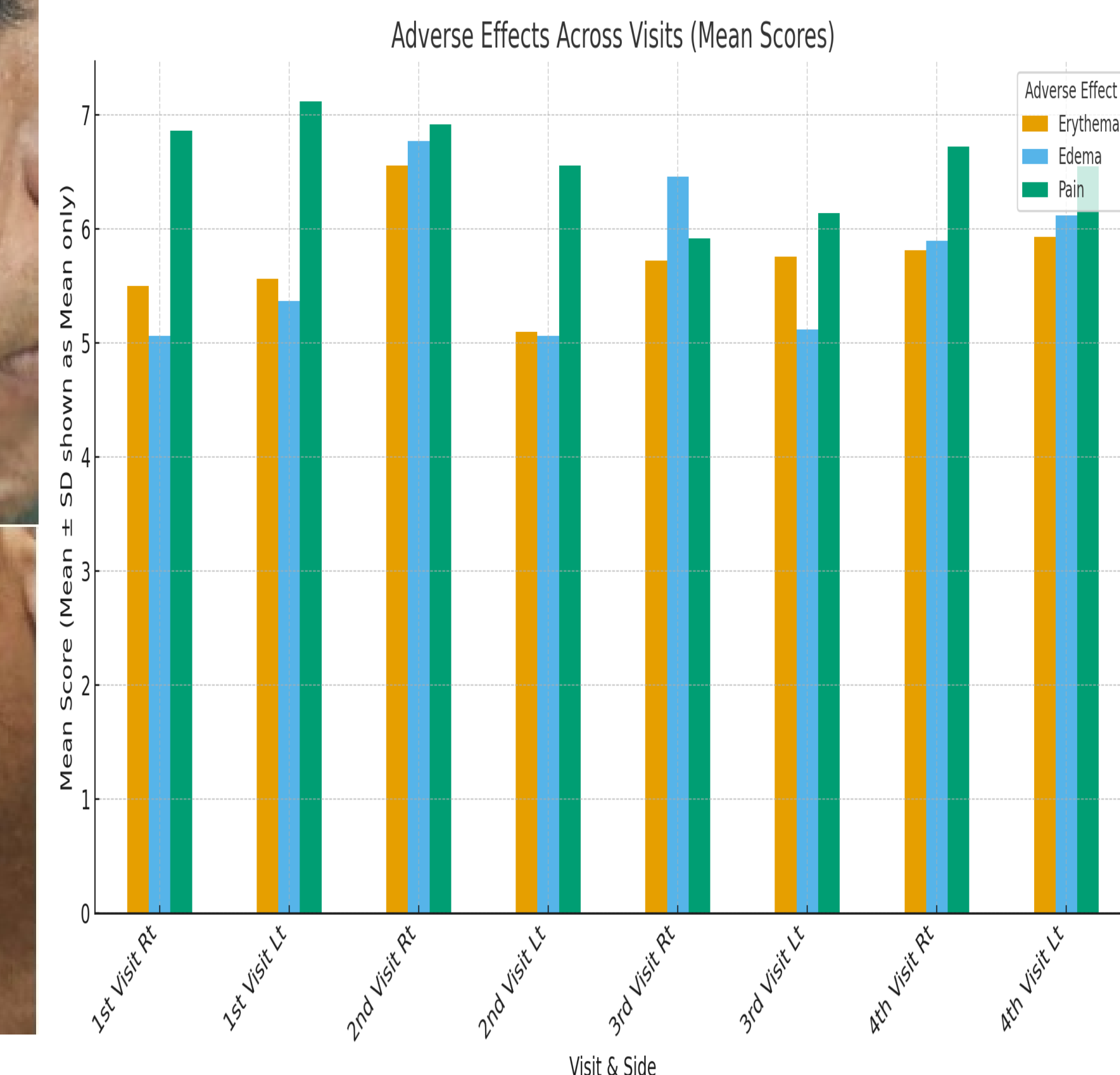


Fig.3: Mean Visual analogue score (edema, erythema and pain) done at every visit

CONCLUSION

Combination therapy of FCL with iPRF is a method for treating atrophic scars from acne that is both safe and effective. Furthermore, both modalities showed lesser improvement in ice pick and punched-out deep scars. iPRF is a safe, quick, and easy modality that can be undertaken in both private and public setups. It can be considered for sequential therapy or combination therapy.

REFERENCES

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- [2] Diab NA, Ibrahim AS, Abdallah AM. Fluid Platelet-Rich Fibrin (PRF) Versus Platelet-Rich Plasma (PRP) in the Treatment of Atrophic Acne Scars: A Comparative Study. Archives of Dermatological Research. 2023 Jul;315(5):1249-55

CONFLICT OF INTEREST -NIL