

"EFFICACY OF PRP AND STEROID INJECTION IN TREATMENT OF CHRONIC PLANTAR FASCITIS - A PROSPECTIVE DOUBLE BLIND STUDY

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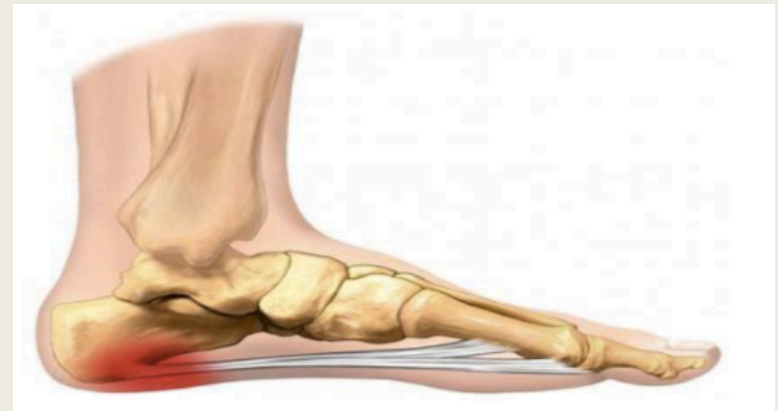
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- conflict of interest : none

- Plantar fasciitis is one of the most common causes of heel pain.
- pain in the heel, which aggravates on weight bearing after prolonged rest.
- **thickness values >4.0 mm** are diagnostic of plantar fasciitis.
- Additionally, subcalcaneal spur formation is strongly associated with pain beneath the heel.

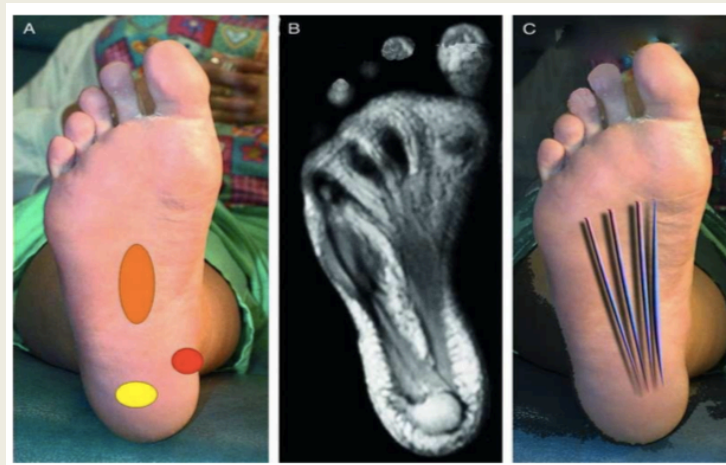
AIM:

To compare functional outcome of chronic plantar fasciitis treated with PRP compared to steroid injection.

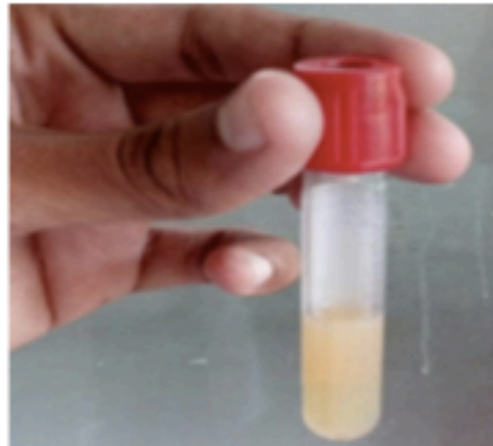
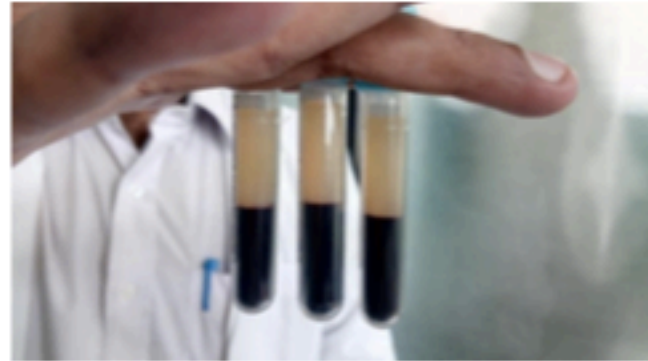
Material and methods

- Prospective study
- Double blind
- Cases of lateral plantar fasciitis in PESIMSR MEDICAL COLLEGE HOSPITAL are studied.
- Inclusion criteria :
 - Unilateral chronic plantar fasciitis.
 - Did not respond to minimum of 6 weeks non operative treatment.
- Exclusion criteria ;
 - previous surgery for plantar fasciitis, active bilateral plantar fasciitis, diagnosis of vascular insufficiency or neuropathy related to heel pain, hypothyroidism and diabetics.

- All patients diagnosed clinically
- Ultrasound : to measure thickness of plantar fascia. (>4mm)
- Males : 30 ; females : 30.
- Randomization :sequentially numbered, opaque, sealed envelopes (SNOSE).
- Prior consent was taken
- Blood is drawn from patients in both groups (blinding)



- PRP preparation – double spin method.
- Platelet count - 5 times the baseline.
- Injected at tender spot by peppering technique



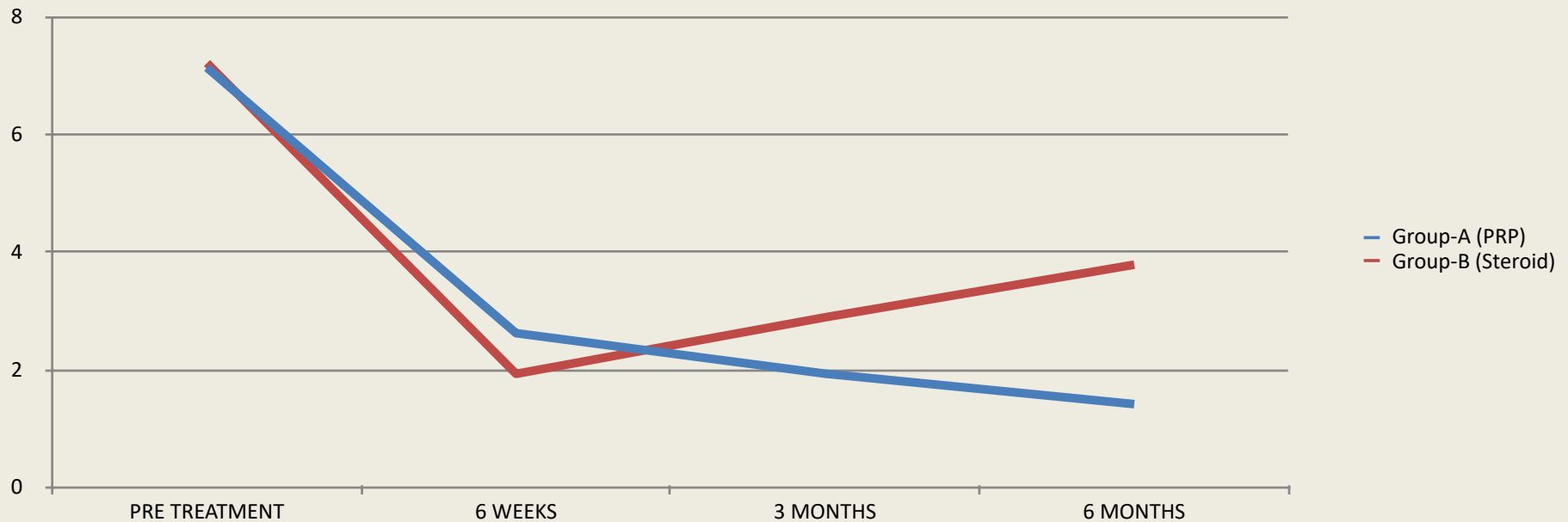
- PRP – 3ml (peppering technique)
- STEROID - (Depomedrol 80mg (2ml) + 0.5 ml xylocaine 2%).
- Visual analogue score (VAS)
- American Orthopedic Foot and Ankle Society (AOFAS) score
- USG – plantar fascia thickness.
- Data were collected before procedure, at 4,8,12 weeks,6 months,.

Patient Demographics

	PRP GROUP (29)	STEROID GROUP (28)
Male	14 (48%)	12 (57%)
Female	15 (52%)	16 (43%)
AGE	40.27yrs (mean, SD – 8.03)	
Right side	14 (48%)	15 (54%)
Left side	15 (52%)	13 (46%)

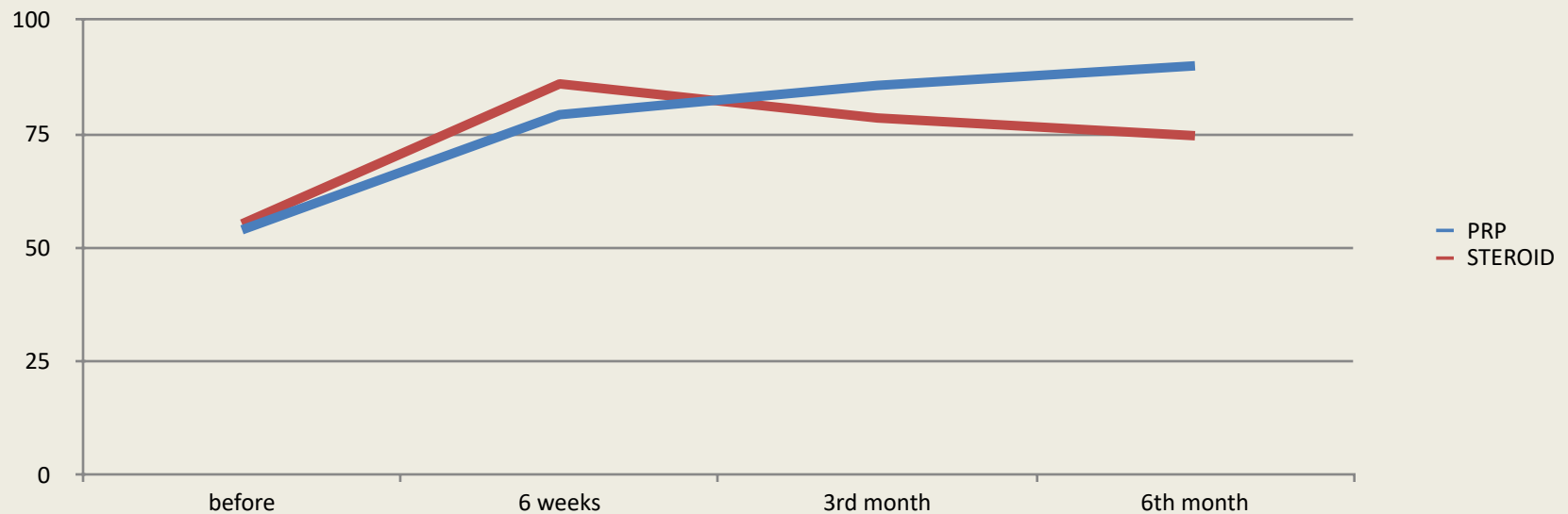
VAS SCORE

VAS	Group-A (PRP)	Group-B (Steroid)	P value
PRE TREATMENT	7.137	7.214	<0.001 (6 MONTH)
6 WEEKS	2.62	1.928	
3 MONTHS	1.931	2.89	
6 MONTHS	1.413	3.785	



AOFAS score

	PRP	STERIOD	
before	54	55.3	
6 weeks	79.3	86.06	
3 rd month	85.72	78.57	
6 th month	90.03	74.67	P<0.001



Plantar fascia thickness

	PRP	STEROID
before	5.78	5.60
6 months	3.35 (P<0.0003)	3.75

Discussion

- Our study was designed to compare the use of concentrated autologous platelets to corticosteroid in patients with plantar fasciitis.
- Its application proved to be both safe and easy.
- The corticosteroid group was actually better initially and then declined.
- There was a significant difference in decrease of pain and disability of function after the treatment with PRP_injection.

CONCLUSION

Local injection of platelet rich plasma is an effective treatment option for chronic plantar fasciitis when compared to steroid injection and beneficial effect last for long term.

• REFERENCES

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- **Sample size was calculated using formula based on means and standard deviation as in study by Jain et al using stat software.**