



## CASE SERIES: PROLOTHERAPY FOR MYOFASCIAL PAIN

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### INTRODUCTION:

Approximately 1.71 billion people worldwide suffer from musculoskeletal disorders. An estimated over 30-85% of patients with musculoskeletal pain suffer from myofascial pain syndrome (MFPS).<sup>1</sup> Chronic MFPS presents a greater challenge to treat. Recently, complementary therapy such as prolotherapy has become a popular choice of treatment.<sup>2</sup>

### METHODS:

A mixture of 0.5 ml sodium bicarbonate and 500ml of 5% Dextrose was prepared. Trigger points (TrPs) were palpated and marked. Each TrPs was injected with 1.5-3 ml of the mixture using a 25-gauge needle. Pain score before the injection, immediately after, and 30 minutes later were obtained using the Numerical Rating System (NRS). Patients were followed up and tabulated.

### RESULTS:

7 patients, 3 men and 4 women, were enrolled in the study. Their age ranges from 30-70 years old. NRS showed an average pain score reduction from 5.5 to 3.4 immediately after the injection. Average pain score after 30 minutes was much lower at 2.9. This showed an average pain reduction of 47% after one course of treatment.

Patients	Pain score by Numeric Rating Scale(NRS)		
	Pre-injection	Immediate post-injection	30-minutes post-injection
1.	8	6	4
2.	8	5	5
3.	4	2	2
4.	6	4	3
5.	4	2	2
6.	6	5	3
7.	3	0	1

### DISCUSSIONS:

Han et al. compared TrPs injection with dextrose, lidocaine, normal saline, and botox and concluded that there was a significant decrease in VAS in all group. Kim et al. compared the effects of 5% dextrose, saline, and 0.5% lidocaine in TrPs injection. They concluded that 5% dextrose would be the preferable choice. Studies have shown dextrose injections below a 10% solution directly stimulate proliferation of cells and tissue without causing a histological inflammatory reaction.<sup>2</sup> Dextrose is an ideal solution because it is cheap, easy access, safe without complication such as systemic toxicity, muscle weakness, local inflammation as in other solutions used for prolotherapy.

### CONCLUSION:

Dextrose prolotherapy should be considered by clinician as a treatment for MFPS as it is a safe and cost-effective with good outcome.

### REFERENCES:

1. Myofascial Pain Syndrome by Anupahan Tatanip<sup>1</sup> kevin chang<sup>2</sup>
2. journalofprolotherapy.com