Effects of Piroxicam Phonophoresis in the Treatment of Temporomandibular Joint Disorders in Patients Undergoing Orthodontic Treatment: A Prospective Clinical Study

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ABSTRACT

Objective: To evaluate the effect of phonophoresis of piroxicam, versus ultrasound alone, in the treatment of temporomandibular joint disorders of orthodontic patients

Materials and methods: A prospective comparative clinical study was conducted on 40 patients with temporomandibular joint disorders. The age range of patients was 20-40 years with a mean of 26.4± 4.9 years, 14 were males and 26 were females. Groups I of 20 patients received seven days of daily application of piroxicam gel over the joint and activated by ultrasound for 5 minutes. Group II only received ultrasound therapy. Visual analogue pain score and degree of mouth opening were measured before starting treatment and after the seven days of therapy.

Results: Both piroxicam phonophoresis and ultrasound alone application resulted in a significant reduction of pain score and improvement of mouth opening. Piroxicam phonophoresis reduced VAS score by 3.74 (±1.61) as compared to 1.45 (±1.09) in the ultrasound group. The improvement in mouth opening in piroxicam group was 9.05 mm(±4.49mm) as compared to 3.24 mm (±3.70 mm) However, the change of these two clinical parameters was significantly more in the phonophoresis group than in the ultrasound group.
Conclusion: Phonophoresis of piroxicam significantly influences the pain relieve and improvement of mouth opening in patients with temporomandibular disorders.

Keywords: Phonophoresis, Piroxicam, Temporomandibular joint disorders, Ultrasound

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