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A pilot study on the use of low level laser therapy in treatment of temporomandibular disorder (Article)

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Abstract

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Temporomandibular disorders (TMDs) is a collective term that embracing a number of clinical problems that involve the masticatory muscles, Temporomandibular Joint (TMJs), and the associated structures. It characterized by facial pain in the area of TMJ and muscle of mastication, restriction and sound during mandibular movement. Recently physical therapy such as Low Level Laser Therapy (LLLT) is used as one of the treatment modalities and it is believed to promote wound healing, tissue repair and induce analgesia. Convenience sampling was used which consist of 22 volunteered patients, 14 were treated with conventional treatment and 8 were treated with combination of LLLT and conventional therapy. Laser machine used was Waterlase/Biolase © 2007 with irradiation 0.5 W- 30 Hz daily for three consecutive days, then once a week review treatment for two weeks. The space between laser beam and skin is 3 cm, applied as small circles for 2-3 minutes. Pain intensity before and after the treatment was recorded by using numerical rating scale (NRS). Statistical data analysis was conducted using SPSS software. Wilcoxon-sign ranked-test and Mann-Whitney U test were used. Pain intensity was reduced significantly in patients whom treated by combination of LLLT and conventional therapy. ($p < 0.05$). Pain intensity after treatment for female were higher ($M=1.20$, $SD=1.10$) than for male ($M=0.00$, $SD=0.00$). Younger patients have higher pain intensity than older patients. LLLT is effective to be used as adjunct to the current conventional treatment in relieving pain in TMDs. © 2018 University of Dicle.

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