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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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References (26)

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1 Gumay, R.A., Tanti, I., Koesmaningati, H.
The relationship between temporomandibular disorders and quality-of-life-related orofacial pain

(2017) *Journal of International Dental and Medical Research*, 10 (Specialissue), pp. 677-682. Cited 2 times.
http://www.jidmr.com/journal/wp-content/uploads/2017/12/48.64Rifa-Astari-et-al-rev.pdf

2 Aditya, A., Lele, S., Aditya, P.
Prevalence of symptoms associated with temporomandibular disorders in patients with psychosocial disorders

(2012) *Journal of International Dental and Medical Research*, 5 (1), pp. 26-29. Cited 4 times.
http://www.ektodermaldisplazi.com/journal/Journal2012/Vol5_No1/4_D12-148_Amita_Aditya.pdf

3 Tanti, I., Himawan, L.S., Kusdhany, L.
Etiology of temporomandibular disorders index

(2016) *Journal of International Dental and Medical Research*, 9 (Specialissue), pp. 299-305. Cited 5 times.
http://www.ektodermaldisplazi.com/journal/Journal2016/Special_Issue/6_D16_30_Ira_Tanti_etiology.pdf

4 Lobbezoo, F., Ahlberg, J., Glaros, A.G., Kato, T., Koyano, K., Lavigne, G.J., de Leeuw, R., (...), Winocur, E.
Bruxism defined and graded: An international consensus

(2013) *Journal of Oral Rehabilitation*, 40 (1), pp. 2-4. Cited 349 times.
doi: 10.1111/joor.12011

View at Publisher

5 Jezukaitis, P., Kapur, D.
Management of occupation-related musculoskeletal disorders

(2011) *Best Practice and Research: Clinical Rheumatology*, 25 (1), pp. 117-129. Cited 6 times.
http://www.elsevier.com/inca/publications/store/6/2/3/0/0/5/index.htt
doi: 10.1016/j.berh.2011.01.010

View at Publisher

6 Faulin, E.F., Guedes, C.G., Feltrin, P.P., Joffiley, C.M.
Association between temporomandibular disorders and abnormal head postures (Open Access)

(2015) *Brazilian oral research*, 29. Cited 7 times.
doi: 10.1590/1807-3107BOR-2015.vol29.0064

View at Publisher

7 Chung, H., Dai, T., Sharma, S.K., Huang, Y.-Y., Carroll, J.D., Hamblin, M.R.
The nuts and bolts of low-level laser (Light) therapy

(2012) *Annals of Biomedical Engineering*, 40 (2), pp. 516-533. Cited 445 times.
doi: 10.1007/s10439-011-0454-7

View at Publisher

8 Verma, S., Chaudhari, P., Maheshwari, S., Singh, R.
Laser in dentistry: An innovative tool in modern dental practice
(2012) *Natl. J. Maxillofac. Surg*, 3 (2), p. 124. Cited 49 times.

Assessment of the relationship between clinicophysiologic and magnetic resonance imaging findings of the temporomandibular disorder patients

Basat, S.O. , Surmeli, M. , Demirel, O.
(2016) Journal of Craniofacial Surgery

Impact of temporomandibular disorders and sleep bruxism on oral health-related quality of life of individuals with complete cleft lip and palate

Da Silva, F.C. , De Oliveira, T.M. , De Almeida, A.L.P.F.
(2018) Journal of Craniofacial Surgery

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9 Fabre, H.S.C., Navarro, R.L., Oltramari-Navarro, P.V.P., Oliveira, R.F., Pires-Oliveira, D.A.A., Andraus, R.A.C., Fuirini, N., (...), Fernandes, K.B.P.

Anti-inflammatory and analgesic effects of low-level laser therapy on the postoperative healing process (Open Access)

(2015) *Journal of Physical Therapy Science*, 27 (6), pp. 1645-1648. Cited 16 times.
https://www.jstage.jst.go.jp/article/jpts/27/6/27_jpts-2014-793/_pdf
doi: 10.1589/jpts.27.1645

View at Publisher

10 Chang, W.-D., Lee, C.-L., Lin, H.-Y., Hsu, Y.-C., Wang, C.-J., Lai, P.-T.

A meta-analysis of clinical effects of low-level laser therapy on temporomandibular joint pain (Open Access)

(2014) *Journal of Physical Therapy Science*, 26 (8), pp. 1297-1300. Cited 19 times.
https://www.jstage.jst.go.jp/article/jpts/26/8/26_jpts-2014-025/_pdf
doi: 10.1589/jpts.26.1297

View at Publisher

11 Rahimi, A., Rabiei, S., Mojahedi, S., Kosarieh, E.

Application of low level laser in temporomandibular disorders

(2011) *Journal of Lasers in Medical Sciences*, 2 (4), pp. 165-170. Cited 2 times.
http://www.journals.sbmu.ac.ir/jlms/article/download/2620/2562

12 Schiffman, E.L., Velly, A.M., Look, J.O., Hodges, J.S., Swift, J.Q., Decker, K.L., Anderson, Q.N., (...), Fricton, J.R.

Effects of four treatment strategies for temporomandibular joint closed lock

(2014) *International Journal of Oral and Maxillofacial Surgery*, 43 (2), pp. 217-226. Cited 36 times.
doi: 10.1016/j.ijom.2013.07.744

View at Publisher

13 Oono, Y., Wang, K., Baad-Hansen, L., Futarmal, S., Kohase, H., Svensson, P., Arendt-Nielsen, L.

Conditioned pain modulation in temporomandibular disorders (TMD) pain patients

(2014) *Experimental Brain Research*, 232 (10), pp. 3111-3119. Cited 24 times.
link.springer.de/link/service/journals/00221/index.htm
doi: 10.1007/s00221-014-3997-7

View at Publisher

14 Hjermstad, M.J., Fayers, P.M., Haugen, D.F., Caraceni, A., Hanks, G.W., Loge, J.H., Fainsinger, R., (...), Kaasa, S.

Studies comparing numerical rating scales, verbal rating scales, and visual analogue scales for assessment of pain intensity in adults: A systematic literature review

(2011) *Journal of Pain and Symptom Management*, 41 (6), pp. 1073-1093. Cited 792 times.
doi: 10.1016/j.jpainsymman.2010.08.016

View at Publisher

15 Dym, H., Israel, H.

Diagnosis and Treatment of Temporomandibular Disorders

(2012) *Dental Clinics of North America*, 56 (1), pp. 149-161. Cited 31 times.
doi: 10.1016/j.cden.2011.08.002

View at Publisher

16 Hertling, R.K.D.
(2006) *Management of common musculoskeletal disorders: physical therapy principles and methodsNo Title*. Cited 244 times.

17 Mazzetto, M.O., Rodrigues, C.A., Magri, L.V., Melchior, M.O., Paiva, G.
Severity of TMD related to age, sex and electromyographic analysis (Open Access)

(2014) *Brazilian Dental Journal*, 25 (1), pp. 54-58. Cited 12 times.
http://www.scielo.br/pdf/bdj/v25n1/0103-6440-bdj-25-01-54.pdf
doi: 10.1590/0103-6440201302310

View at Publisher

18 Tanti, I., Himawan, L.S., Kusdhany, L., Bachtiar, A., Ismail, R.I.
Validation of stress screening questionnaire in temporomandibular disorders patient

(2016) *Journal of International Dental and Medical Research*, 9 (Specialissue), pp. 272-276.
http://www.ektodermaldisplazi.com/journal/Journal2016/Special_Issue/1_D16_29_Ira_Tanti_validation.pdf

19 Kijak, E., Lietz-Kijak, D., Frączak, B., Tiwiński, Z., Margielewicz, J.
Assessment of the TMJ dysfunction using the computerized facebow analysis of selected parameters (Open Access)

(2015) *BioMed Research International*, 2015, art. no. 508069. Cited 5 times.
http://www.hindawi.com/journals/biomed/
doi: 10.1155/2015/508069

View at Publisher

20 Jaafar, N., Hakim, H., Mohd Nor, N.A., Mohamed, A., Saub, R., Esa, R., Doss, J., (...), Majid, H.A.
Is the burden of oral diseases higher in urban disadvantaged community compared to the national prevalence? (Open Access)

(2014) *BMC Public Health*, 14, art. no. 7270. Cited 5 times.
http://www.biomedcentral.com/bmcpublichealth
doi: 10.1186/1471-2458-14-S3-S2

View at Publisher

21 Feteih, R.M.
Signs and symptoms of temporomandibular disorders and oral parafunctions in urban Saudi Arabian adolescents: a research report.

(2006) *Head & face medicine*, 2, p. 25. Cited 72 times.

22 Merrill, R.L.
Manual of Temporomandibular Disorders, Second Edition
(2010) *J. Orofac. Pain*, 24, p. 210.

23 Velly, A.M., Gornitsky, M., Philippe, P.
Contributing factors to chronic myofascial pain: A case-control study

(2003) *Pain*, 104 (3), pp. 491-499. Cited 133 times.
www.elsevier.com/locate/painonline
doi: 10.1016/S0304-3959(03)00074-5

View at Publisher

24 Murrieta, J., Alvarado, E., Valdez, M., Orozco, L., Meza, J., Juárez, M.L.
Prevalence of temporomandibular joint disorders in a Mexican elderly group (Open Access)

(2016) *Journal of Oral Research*, 5 (1), pp. 13-18. Cited 3 times.
http://www.joralres.com/index.php/JOR/article/download/joralres.2016.004/206
doi: 10.17126/joralres.2016.004

View at Publisher

25 Bagis, B., Ayaz, E.A., Turgut, S., Durkan, R., Özcan, M.
Gender difference in prevalence of signs and symptoms of temporoman-dibular joint disorders: A retrospective study on 243 consecutive patients (Open Access)

(2012) *International Journal of Medical Sciences*, 9 (7), pp. 539-544. Cited 50 times.
http://www.medsci.org/v09p0539.pdf
doi: 10.7150/ijms.4474

View at Publisher

26 Wieckiewicz, M., Boening, K., Wiland, P., Shiau, Y.-Y., Paradowska-Stolarz, A.
Reported concepts for the treatment modalities and pain management of temporomandibular disorders (Open Access)

(2015) *Journal of Headache and Pain*, 16 (1), art. no. 106, pp. 1-12. Cited 45 times.
link.springer.de/link/service/journals/10194/index.htm
doi: 10.1186/s10194-015-0586-5

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