

172 articles are presented in Additional file 2: Appendix B.

1 Aksakalli S, Temucin F, Pamukcu A, Ezirganlı S, Kazancioglu HO, Malkoc MA. Effectiveness of two different splints to treat temporomandibular disorders. *J Orofac Orthop* 2015;76(4):318–27.

2 Barbosa MA, Tahara AK, Ferreira IC, Intelangelo L, Barbosa AC. Effects of 8 weeks of masticatory muscles focused endurance exercises on women with oro-facial pain and temporomandibular disorders: A placebo randomised controlled trial. *J Oral Rehabil* 2019;46(10):885–94.

3 Basili M, Barlattani A Jr, Venditti A, Bollero P. Low-level laser therapy in the treatment of muscle-skelet pain in patients affected by temporo-mandibular disorders. *Oral Implantol (Rome)* 2017;10(4):406–11.

4 Batifol D, Huart A, Finiels PJ, Nagot N, Jammet P. Effect of intra-articular Botulinum toxin injections on temporo-mandibular joint pain. *J Stomatol Oral Maxillofac Surg* 2018;119(4):319–24.

5 Bergmann A, Edelhoff D, Schubert O, Erdelt KJ, Pho Duc JM. Effect of treatment with a full-occlusion biofeedback splint on sleep bruxism and TMD pain: a randomized controlled clinical trial. *Clin Oral Investig* 2020;24(11):4005–18.

6 Bouloux GF, Chou J, Krishnan D, Aghaloo T, Kahenasa N, Smith JA, Giannakopoulos H. Is Hyaluronic Acid or Corticosteroid Superior to Lactated Ringer Solution in the Short Term for Improving Function and Quality of Life After Arthrocentesis? Part 2. *J Oral Maxillofac Surg* 2017;75(1):63–72.

7 Bouloux GF, Chou J, Krishnan D, Aghaloo T, Kahenasa N, Smith JA, Giannakopoulos H. Is Hyaluronic Acid or Corticosteroid Superior to Lactated Ringer Solution in the Short-Term Reduction of Temporomandibular Joint Pain After Arthrocentesis? Part 1. *J Oral Maxillofac Surg* 2017;75(1):52–62.

8 Brochado FT, Jesus LH, Carrard VC, Freddo AL, Chaves KD, Martins MD. Comparative effectiveness of photobiomodulation and manual therapy alone or combined in TMD patients: a randomized clinical trial. *Braz Oral Res* 2018;32:e50.

- 9 Calixtre LB, Oliveira AB, de Sena Rosa LR, Armijo-Olivo S, Visscher CM, Albuquerque-Sendín F. Effectiveness of mobilisation of the upper cervical region and craniocervical flexor training on orofacial pain, mandibular function and headache in women with TMD. A randomised, controlled trial. *J Oral Rehabil* 2019;46(2):109–19.
- 10 Carvalho CM, de Lacerda JA, dos Santos Neto FP, Cangussu MC, Marques AM, Pinheiro AL. Wavelength effect in temporomandibular joint pain: a clinical experience. *Lasers Med Sci* 2010;25(2):229–32.
- 11 Carvalho FR, Barros RQ, Gonçalves AS, Freitas PM. Photobiomodulation therapy on the palliative care of temporomandibular disorder and orofacial/cervical skull pain: study protocol for a randomized controlled clinical trial. *Trials* 2019;20(1):200.
- 12 Cavalcanti MF, Silva UH, Leal-Junior EC, et al. Comparative Study of the Physiotherapeutic and Drug Protocol and Low-Level Laser Irradiation in the Treatment of Pain Associated with Temporomandibular Dysfunction. *Photomed Laser Surg* 2016;34(12):652–6.
- 13 Celakil T, Muric A, Gökçen Roehlig B, Evlioglu G. Management of pain in TMD patients: Bio-oxidative ozone therapy versus occlusal splints. *Cranio* 2019;37(2):85–93.
- 14 Chang SW, Chuang CY, Li JR, Lin CY, Chiu CT. Treatment effects of maxillary flat occlusal splints for painful clicking of the temporomandibular joint. *Kaohsiung J Med Sci* 2010;26(6):299–307.
- 15 Chellappa D, Thirupathy M. Comparative efficacy of low-Level laser and TENS in the symptomatic relief of temporomandibular joint disorders: A randomized clinical trial. *Indian J Dent Res* 2020;31(1):42–7.
- 16 Conti PC, Corrêa AS, Lauris JR, Stuginski-Barbosa J. Management of painful temporomandibular joint clicking with different intraoral devices and counseling: a controlled study. *J Appl Oral Sci* 2015;23(5):529–35.
- 17 Costa YM, Porporatti AL, Stuginski-Barbosa J, Bonjardim LR, Conti PC. Additional effect of occlusal splints on the improvement of psychological aspects in temporomandibular disorder subjects: A randomized controlled trial. *Arch Oral Biol* 2015;60(5):738–44.

- 18 Craane B, Dijkstra PU, Stappaerts K, De Laat A. Randomized controlled trial on physical therapy for TMJ closed lock. *J Dent Res* 2012;91(4):364–9.
- 19 Cuccia AM, Caradonna C, Annunziata V, Caradonna D. Osteopathic manual therapy versus conventional conservative therapy in the treatment of temporomandibular disorders: a randomized controlled trial. *J Body Mov Ther* 2010;14(2):179–84.
- 20 Daif ET. Correlation of splint therapy outcome with the electromyography of masticatory muscles in temporomandibular disorder with myofascial pain. *Acta Odontol Scand* 2012;70(1):72–7.
- 21 Dantas CMG, Vivan CL, de Fantini SM, et al. The influence of educational measures and low-level laser phototherapy on temporomandibular disorders: Study protocol clinical trial (SPIRIT Compliant). *Medicine (Baltimore)* 2020;99(10):e19005.
- 22 Datarkar A, Daware S, Dande R. Utility of Vacuum Pressed Silicon Sheet as a Bite Raising Appliance in the Management of TMJ Dysfunction Syndrome. *J Maxillofac Oral Surg* 2017;16(3):342–6. doi: 10.1007/s12663-016-0991-6.
- 23 de Resende CMBM, de Oliveira Medeiros FGL, de Figueiredo Rêgo CR, Bispo ASL, Barbosa GAS, de Almeida EO. Short-term effectiveness of conservative therapies in pain, quality of life, and sleep in patients with temporomandibular disorders: A randomized clinical trial. *Cranio* 2019;15:1–9.
- 24 Del Vecchio A, Floravanti M, Boccassini A, et al. Evaluation of the efficacy of a new low-level laser therapy home protocol in the treatment of temporomandibular joint disorder-related pain: A randomized, double-blind, placebo-controlled clinical trial. *Cranio* 2019,(online)1–11.
- 25 DeVocht JW, Goertz CM, Hondras MA, et al. A pilot study of a chiropractic intervention for management of chronic myofascial temporomandibular disorder. *J Am Dent Assoc* 2013;144(10):1154–63.
- 26 Elder C, Ritenbaugh C, Aickin M, et al. Reductions in pain medication use associated with traditional Chinese medicine for chronic pain. *Perm J* 2012;16(3):18–23.

- 27 Emshoff R, Bertram A, Stigler RG, Schnabl D. Early responses to 3 mm resilient stabilization appliance therapy for sub-acute and chronic temporomandibular disorder pain predict 12-months follow-up outcomes. *Cranio* 2019;10:1–7.
- 28 Ferendiuk E, Biegańska JM, Kazana P, Pihut M. Progressive muscle relaxation according to Jacobson in treatment of the patients with temporomandibular joint disorders. *Folia Med Cracov* 2019;59(3):113–22.
- 29 Ferrando M, Galdón MJ, Durá E, Andreu Y, Jiménez Y, Poveda R. Enhancing the efficacy of treatment for temporomandibular patients with muscular diagnosis through cognitive-behavioral intervention, including hypnosis: a randomized study. *Oral Surg Oral Med Oral Pathol Oral Radiol* 2012;113(1):81–9.
- 30 Ferreira LA, de Oliveira RG, Guimarães JP, Carvalho AC, De Paula MV. Laser acupuncture in patients with temporomandibular dysfunction: a randomized controlled trial. *Lasers Med Sci* 2013;28(6):1549–58.
- 31 Ficnar T, Middelberg C, Rademacher B, Hessling S, Koch R, Figgenger L. Evaluation of the effectiveness of a semi-finished occlusal appliance--a randomized, controlled clinical trial. *Head Face Med* 2013;9:5.
- 32 Gawriolek K, Azer SS, Gawriolek M, Piotrowski PR. Mandibular function after Myorelaxation Therapy in temporomandibular disorders. *Adv Med Sci* 2015;60(1):6–12.
- 33 Giannakopoulos NN, Rauer AK, Hellmann D, Hugger S, Schmitter M, Hugger A. Comparison of device-supported sensorimotor training and splint intervention for myofascial temporomandibular disorder pain patients. *J Oral Rehabil* 2018;45(9):669–76.
- 34 Goncalves DA, Camparis CM, Speciali JG, et al. Treatment of comorbid migraine and temporomandibular disorders: a factorial, double-blind, randomized, placebo-controlled study. *J Orofac Pain* 2013;27(4):325–35.
- 35 Grillo CM, Canales Gde L, Wada RS, et al. Could Acupuncture Be Useful in the Treatment of Temporomandibular Dysfunction? *J Acupunct Meridian Stud* 2015;8(4):192–9.

36 Haviv Y, Zini A, Sharav Y, Almozni G, Benoliel R. Nortriptyline Compared to Amitriptyline for the Treatment of Persistent Masticatory Myofascial Pain. *J Oral Facial Pain Headache* 2019;33(1):7–13.

37 Heredia-Rizo AM, Oliva-Pascual-Vaca A, Rodríguez-Blanco C, Piña-Pozo F, Luque-Carrasco A, Herrera-Monge P. Immediate changes in masticatory mechanosensitivity, mouth opening, and head posture after myofascial techniques in pain-free healthy participants: a randomized controlled trial. *J Manipulative Physiol Ther* 2013;36(5):310–8.

38 Huhtela OS, Koivisto N, Hägg V, Sipilä K. Effectiveness of applied relaxation method vs splint in treatment of temporomandibular disorders in Finnish students. *J Oral Rehabil* 2020;47(2):123–31.

39 Inchingolo F, Tatullo M, Marrelli M, Inchingolo AM, Tarullo A, Inchingolo AD, Dipalma G, Podo Brunetti S, Tarullo A, Cagiano R. Combined occlusal and pharmacological therapy in the treatment of temporo-mandibular disorders. *Eur Rev Med Pharmacol Sci* 2011;15(11):1296–300.

40 Isacson G, Schumann M, Nohlert E, Mejersjö C, Tegelberg Å. Pain relief following a single-dose intra-articular injection of methylprednisolone in the temporomandibular joint arthralgia-A multicentre randomised controlled trial. *J Oral Rehabil* 2019;46(1):5–13.

41 Katyayan PA, Katyayan MK, Shah RJ, Patel G. Efficacy of appliance therapy on temporomandibular disorder related facial pain and mandibular mobility: a randomized controlled study. *J Indian Prosthodont Soc* 2014;14(3):251–61.

42 Keskin Tunç S, Ünalın Değirmenci B, Alpaslan Yaylı N, Aslan Ş, Akdeniz MŞ. Evaluation the effects of low-level laser therapy on disc displacement with reduction. *Turk J Phys Med Rehabil* 2020;66(1):24–30.

43 Khairnar S, Bhate K, S N SK, Kshirsagar K, Jagtap B, Kakodkar P. Comparative evaluation of low-level laser therapy and ultrasound heat therapy in reducing temporomandibular joint disorder pain. *J Dent Anesth Pain Med* 2019;19(5):289–94.

- 44 Khalighi HR, Mortazavi H, Mojahedi SM, Azari-Marhabi S, Moradi Abbasabadi F. Low Level Laser Therapy Versus Pharmacotherapy in Improving Myofascial Pain Disorder Syndrome. *J Lasers Med Sci* 2016;7(1):45–50.
- 45 Kokkola O, Suominen AL, Qvintus V, et al. Efficacy of stabilisation splint treatment on the oral health-related quality of life-A randomised controlled one-year follow-up trial. *J Oral Rehabil* 2018;45(5):355–62.
- 46 Kostrzewa-Janicka J, Mierzwinska-Nastalska E, Rolski D, Szczyrek P. Occlusal stabilization splint therapy in orofacial pain and tension-type headache. *Adv Exp Med Biol* 2013;788:181–8.
- 47 Kraaijenga S, van der Molen L, van Tinteren H, Hilgers F, Smeele L. Treatment of myogenic temporomandibular disorder: a prospective randomized clinical trial, comparing a mechanical stretching device (TheraBite®) with standard physical therapy exercise. *Cranio* 2014;32(3):208–16.
- 48 Kümbüloğlu O, Saracoglu A, Bingöl P, Hatipoğlu A, Ozcan M. Clinical study on the comparison of masticatory efficiency and jaw movement before and after temporomandibular disorder treatment. *Cranio* 2013;31(3):190–201.
- 49 Lietz-Kijak D, Kopacz Ł, Ardan R, Grzegocka M, Kijak E. Assessment of the Short-Term Effectiveness of Kinesiotaping and Trigger Points Release Used in Functional Disorders of the Masticatory Muscles. *Pain Res Manag* 2018:5464985.
- 50 Lin SL, Wu SL, Ko SY, Yen CY, Yang JW. Effect of Flat-Plane Splint Vertical Thickness on Disc Displacement Without Reduction: A Retrospective Matched-Cohort Study. *J Oral Maxillofac Surg* 2017;75:1627-1636.
- 51 Machado BC, Mazzetto MO, Da Silva MA, de Felício CM. Effects of oral motor exercises and laser therapy on chronic temporomandibular disorders: a randomized study with follow-up. *Lasers Med Sci* 2016;31(5):945–54.
- 52 Magri LV, Bataglion C, Leite-Panissi CRA. Follow-up results of a randomized clinical trial for low-level laser therapy in painful TMD of muscular origins. *Cranio* 2019:1–8.

53 Magri LV, Carvalho VA, Rodrigues FC, Bataglioni C, Leite-Panissi CR. Effectiveness of low-level laser therapy on pain intensity, pressure pain threshold, and SF-MPQ indexes of women with myofascial pain. *Lasers Med Sci* 2017;32(2):419–28.

54 Mansourian A, Pourshahidi S, Sadrzadeh-Afshar MS, Ebrahimi H. A Comparative Study of Low-Level Laser Therapy and Transcutaneous Electrical Nerve Stimulation as an Adjunct to Pharmaceutical Therapy for Myofascial Pain Dysfunction Syndrome: A Randomized Clinical Trial. *Front Dent* 2019;16(4):256–64.

55 Melo RA, de Resende CMBM, Rêgo CRF, Bispo ASL, Barbosa GAS, de Almeida EO. Conservative therapies to treat pain and anxiety associated with temporomandibular disorders: a randomized clinical trial. *Int Dent J* 2020;70(4):245–53.

56 Michelotti A, Iodice G, Vollaro S, Steenks MH, Farella M. Evaluation of the short-term effectiveness of education versus an occlusal splint for the treatment of myofascial pain of the jaw muscles. *J Am Dent Assoc* 2012;143(1):47–53.

57 Monteiro L, Ferreira R, Resende T, Pacheco JJ, Salazar F. Effectiveness of Photobiomodulation in Temporomandibular Disorder-Related Pain Using a 635 nm Diode Laser: A Randomized, Blinded, and Placebo-Controlled Clinical Trial. *Photobiomodul Photomed Laser Surg* 2020;38(5):280–8.

58 Nadershah M, Abdel-Alim HM, Bayoumi AM, Jan AM, Elatrouni A, Jadu FM. Photobiomodulation Therapy for Myofascial Pain in Temporomandibular Joint Dysfunction: A Double-Blinded Randomized Clinical Trial. *J Maxillofac Oral Surg* 2020;19(1):93–7.

59 Nagata K, Hori S, Mizuhashi R, et al. Efficacy of mandibular manipulation technique for temporomandibular disorders patients with mouth opening limitation: a randomized controlled trial for comparison with improved multimodal therapy. *J Prosthodont Res* 2019;63(2):202–9.

60 Nagata K, Maruyama H, Mizuhashi R, et al. Efficacy of stabilisation splint therapy combined with non-splint multimodal therapy for treating RDC/TMD axis I patients: a randomised controlled trial. *J Oral Rehabil* 2015;42(12):890–9.

61 Niemelä K, Korpela M, Raustia A, Ylöstalo P, Sipilä K. Efficacy of stabilisation splint treatment on temporomandibular disorders. *J Oral Rehabil* 2012;39(11):799–804.

- 62 Nitecka-Buchta A, Marek B, Baron S. CGRP plasma level changes in patients with temporomandibular disorders treated with occlusal splints - a randomised clinical trial. *Endokryinol Pol* 2014;65(3):217–23.
- 63 Noguchi T, Kashiwagi K, Fukuda K. The effectiveness of stabilization appliance therapy among patients with myalgia. *Clin Exp Dent Res* 2020;6(2):244–53.
- 64 Oliveira LB, Lopes TS, Soares C, Maluf R, Goes BT, Sá KN, Baptista AF. Transcranial direct current stimulation and exercises for treatment of chronic temporomandibular disorders: a blind randomised-controlled trial. *J Oral Rehabil* 2015;42(10):723–32.
- 65 Ozkan F, Cakır Özkan N, Erkorkmaz U. Trigger point injection therapy in the management of myofascial temporomandibular pain. *Agri* 2011;23(3):119–25.
- 66 Packer AC, Pires PF, Dibai-Filho AV, Rodrigues-Bigaton D. Effects of upper thoracic manipulation on pressure pain sensitivity in women with temporomandibular disorder: a randomized, double-blind, clinical trial. *Am J Phys Med Rehabil* 2014;93(2):160–8.
- 67 Pihut M, Gorecka M, Ceranowicz P, Wieckiewicz M. The Efficiency of Anterior Repositioning Splints in the Management of Pain Related to Temporomandibular Joint Disc Displacement with Reduction. *Pain Res Manag* 2018;2018:9089286.
- 68 Pihut M, Górnicki M, Orczykowska M, Zarzecka E, Ryniewicz W, Gala A. The Application of Radiofrequency Waves in Supportive Treatment of Temporomandibular Disorders. *Pain Res Manag* 2020;2020:6195601.
- 69 Qvintus V, Suominen AL, Huttunen J, Raustia A, Ylöstalo P, Sipilä K. Efficacy of stabilisation splint treatment on facial pain - 1-year follow-up. *J Oral Rehabil* 2015;42(6):439–46.
- 70 Ramakrishnan SN, Aswath N. Comparative efficacy of analgesic gel phonophoresis and ultrasound in the treatment of temporomandibular joint disorders. *Indian J Dent Res* 2019;30(4):512–5.



- 71 Reynolds B, Puentedura EJ, Kolber MJ, Cleland JA. Effectiveness of Cervical Spine High-Velocity, Low-Amplitude Thrust Added to Behavioral Education, Soft Tissue Mobilization, and Exercise for People With Temporomandibular Disorder With Myalgia: A Randomized Clinical Trial. *J Orthop Sports Phys Ther* 2020;50(8):455–65.
- 72 Ritenbaugh C, Hammerschlag R, Dworkin SF, et al. Comparative effectiveness of traditional Chinese medicine and psychosocial care in the treatment of temporomandibular disorders-associated chronic facial pain. *J Pain* 2012;13(11):1075–89.#
- 73 Rodrigues CA, Melchior MO, Valencise Magri, Mazzetto MO. Can the severity of orofacial myofunctional conditions interfere with the response of analgesia promoted by active or placebo low-level laser therapy? *Cranio* 2020;38(4):240–7.
- 74 Rodriguez-Blanco C, Cocera-Morata FM, Heredia-Rizo AM, Ricard F, Almazán-Campos G, Oliva-Pascual-Vaca Á. Immediate Effects of Combining Local Techniques in the Craniomandibular Area and Hamstring Muscle Stretching in Subjects with Temporomandibular Disorders: A Randomized Controlled Study. *J Altern Complement Med* 2015;21(8):451–9.
- 75 Salmos-Brito JA, de Menezes RF, Teixeira CE, et al. Evaluation of low-level laser therapy in patients with acute and chronic temporomandibular disorders. *Lasers Med Sci* 2013;28(1):57–64.
- 76 Sanders C, Liegey-Dougall A, Haggard R, et al. Temporomandibular Disorder Diagnostic Groups Affect Outcomes Independently of Treatment in Patients at Risk for Developing Chronicity: A 2-Year Follow-Up Study. *J Oral Facial Pain Headache* 2016;30(3):187–202.
- 77 Seifeldin SA, Elhayes KA. Soft versus hard occlusal splint therapy in the management of temporomandibular disorders (TMDs). *Saudi Dent J* 2015;27(4):208–14.
- 78 Shedden Mora MC, Weber D, Neff A, Rief W. Biofeedback-based cognitive-behavioral treatment compared with occlusal splint for temporomandibular disorder: a randomized controlled trial. *Clin J Pain* 2013;29(12):1057–65.
- 79 Shobha R, Narayanan VS, Jagadish Pai BS, Jaishankar HP, Jijin MJ. Low-level laser therapy: A novel therapeutic approach to temporomandibular disorder - A randomized, double-blinded, placebo-controlled trial. *Indian J Dent Res* 2017;28(4):380–7.

- 80 Sidebottom AJ, Patel AA, Amin J. Botulinum injection for the management of myofascial pain in the masticatory muscles. A prospective outcome study. *Br J Oral Maxillofac Surg* 2013;51(3):199–205.
- 81 Sousa BM, López-Valverde N, López-Valverde A, et al. Different Treatments in Patients with Temporomandibular Joint Disorders: A Comparative Randomized Study. *Medicina (Kaunas)* 2020;56(3):113.
- 82 Tabrizi R, Karagah T, Arabion H, Soleimanpour MR, Soleimanpour M. Outcomes of arthrocentesis for the treatment of internal derangement pain: with or without corticosteroids? *J Craniofac Surg* 2014;25(6):e571–5.
- 83 Tatli U, Benlidayi ME, Ekren O, Salimov F. Comparison of the effectiveness of three different treatment methods for temporomandibular joint disc displacement without reduction. *Int J Oral Maxillofac Surg* 2017;46(5):603–9.
- 84 Tavera AT, Montoya MC, Calderón EF, Gorodezky G, Wixtrom RN. Approaching temporomandibular disorders from a new direction: a randomized controlled clinical trial of the TMDes ear system. *Cranio* 2012;30(3):172–82.
- 85 Tuncer AB, Ergun N, Tuncer AH, Karahan S. Effectiveness of manual therapy and home physical therapy in patients with temporomandibular disorders: A randomized controlled trial. *J Bodyw Mov Ther* 2013;17(3):302–8.
- 86 von Piekartz H, Hall T. Orofacial manual therapy improves cervical movement impairment associated with headache and features of temporomandibular dysfunction: a randomized controlled trial. *Man Ther* 2013;18(4):345–50.
- 87 Vos LM, Huddleston Slater JJ, Stegenga B. Arthrocentesis as initial treatment for temporomandibular joint arthropathy: a randomized controlled trial. *J Craniomaxillofac Surg* 2014;42(5):e134–9.
- 88 Vos LM, Stegenga B, Stant AD, Quik EH, Huddleston Slater JJ. Cost Effectiveness of Arthrocentesis Compared to Conservative Therapy for Arthralgia of the Temporomandibular Joint: A Randomized Controlled Trial. *J Oral Facial Pain Headache* 2018;32(2):198–207.

- 89 Weggen T, Schindler HJ, Kordass B, Hugger A. Clinical and electromyographic follow-up of myofascial pain patients treated with two types of oral splint: a randomized controlled pilot study. *Int J Comput Dent* 2013;16(3):209-24. English, German.
- 90 Zonnenberg AJ, Mulder J. The efficacy of a specific stabilization splint. *Cranio* 2014;32(1):68-74.
- 91 Castaño-Joaqui OG, Cano-Sánchez J, Campo-Trapero J, Muñoz-Guerra MF. TMJ arthroscopy with hyaluronic acid: A 12-month randomized clinical trial. *Oral Dis* 2021;27(2):301-11.
- 92 Tchivileva IE, Hadgraft H, Lim PF, et al. Efficacy and safety of propranolol for treatment of temporomandibular disorder pain: a randomized, placebo-controlled clinical trial. *Pain* 2020;161(8):1755-67.
93. Stonehouse-Smith D, Begley A, Dodd M. Clinical evaluation of botulinum toxin A in the management of temporomandibular myofascial pain. *Br J Oral Maxillofac Surg* 2020;58(2):190-3.
94. Keskin Tunç S, Ünalın Değirmenci B, Alpaslan Yaylı N, Aslan Ş, Akdeniz MŞ. Evaluation the effects of low-level laser therapy on disc displacement with reduction. *Turk J Phys Med Rehabil* 2020;66(1):24-30.
95. Nitecka-Buchta A, Nowak-Wachol A, Wachol K, et al. Myorelaxant Effect of Transdermal Cannabidiol Application in Patients with TMD: A Randomized, Double-Blind Trial. *J Clin Med* 2019;8(11):1886.
- 96 Jinal B, Vignesh K, Konark P, Meshramkar R. A clinical investigation onto the effect of occlusal interferences & cognitive behavioural therapy in temporomandibular disorder patients *Ind J Public Health Res Dev* 2019;10(9):509-13.
- 97 Liu X, Zheng J, Cai X, Abdelrehem A, Yang C. Techniques of Yang's arthroscopic discopexy for temporomandibular joint rotational anterior disc displacement. *Int J Oral Maxillofac Surg* 2019;48(6):769-78.

- 98 Louw WF, Reeves KD, Lam SKH, Cheng AL, Rabago D. Treatment of Temporomandibular Dysfunction With Hypertonic Dextrose Injection (Prolotherapy): A Randomized Controlled Trial With Long-term Partial Crossover. *Mayo Clin Proc* 2019;94(5):820–32.
- 99 Kütük SG, Özkan Y, Kütük M, Özdaş T. Comparison of the Efficacies of Dry Needling and Botox Methods in the Treatment of Myofascial Pain Syndrome Affecting the Temporomandibular Joint. *J Craniofac Surg* 2019;30(5):1556–9.
- 100 Hyungsuk Kima, Koh-Woon Kimb, Me-riong Kim et al. Clinical research on the clinical effectiveness and cost-effectiveness of Chuna manual therapy for temporomandibular disorder: A study protocol for a multicenter randomized controlled trial, *European Journal of Integrative Medicine* 2019; 27:27–33
- 101 Abboud W, Nadel S, Yarom N, et al. Arthroscopy of the temporomandibular joint for the treatment of chronic closed lock. *Isr Med Assoc J* 2016;18:397–400.
- 102 Abboud W, Yahalom R, Givol N. Treatment of intermittent locking of the jaw in Wilkes Stage II derangement by arthroscopic lysis and lavage. *J Oral Maxillofac Surg* 2015;73:1466–72.
- 103 Abrahamsen R, Baad-Hansen L, Zachariae R, et al. Effect of hypnosis on pain and blink reflexes in patients with painful temporomandibular disorders. *Clin J Pain* 2011;27:344–51.
- 104 Ahmed N, Sidebottom A, O'Connor M et al. Prospective outcome assessment of the therapeutic benefits of arthroscopy and arthrocentesis of the temporomandibular joint. *Br J Oral Maxillofac Surg* 2012;50:745–8.
- 105 Aksakalli S, Temucin F, Pamukcu A et al. Effectiveness of two different splints to treat temporomandibular disorders. *J Orofac Orthop* 2015;76:318–27.
- 106 Al-Delayme RMA, Alnuamy SH, Hamid FT, et al. The efficacy of platelets rich plasma injection in the superior joint space of the tempromandibular joint guided by ultra sound in patients with non-reducing disk displacement. *J Maxillofac Oral Surg* 2017;16:43–7.
- 107 Andrabi SW, Malik AH, Shah AA. Clinical factors affecting the outcome of arthrocentesis. *J Korean Assoc Oral Maxillofac Surg* 2019;45:9–14.

- 108 Arijji Y, Nakayama M, Nishiyama W, et al. Potential clinical application of masseter and temporal muscle massage treatment using an oral rehabilitation robot in temporomandibular disorder patients with myofascial pain. *Cranio* 2015;33:256–62.
- 109 Asquini G, Bianchi AE, Heneghan NR, et al. Predictors of pain reduction following manual therapy in patients with temporomandibular disorders: a protocol for a prospective observational study. *BMJ (Open)* 2019;9:e032113.
- 110 Attia HS, Mosleh MI, Jan AM, et al. Age, gender and parafunctional habits as prognostic factors for temporomandibular joint arthrocentesis. *Cranio* 2018;36:121–7.
- 111 Costa YM, Porporatti AL, Stuginski-Barbosa J, et al. Headache Attributed to Masticatory Myofascial Pain: Clinical Features and Management Outcomes. *J Oral Facial Pain Headache*. 2015 ;29(4):323-30.
- 112 Celakil T, Muric A, Gokcen Roehlig B, et al. Effect of high-frequency bio-oxidative ozone therapy for masticatory muscle pain: a double-blind randomised clinical trial. *J Oral Rehabil* 2017;44:442–51.
- 113 Checherita LE, Ciubara A, Burlea LS, et al. The impact of pharmacologic and prosthetic-aesthetic treatment in elderly with temporomandibular joint disorders and neuropsychiatric affection. *BRAIN* 2019;10 (Special issue):12–20.
- 114 Cho J, Israel H. Does the age of a patient affect the outcome of temporomandibular joint arthroscopic surgery? *J Oral Maxillofac Surg* 2017;75:1144–50.
- 115 Christidis N, Doepel M, Ekberg E, et al. Effectiveness of a prefabricated occlusal appliance in patients with temporomandibular joint pain: a randomized controlled multicenter study. *J Oral Facial Pain Headache* 2014 ;28:128–37.
- 116 Christidis N, Omrani S, Fredriksson L, et al. Repeated tender point injections of granisetron alleviate chronic myofascial pain - a randomized, controlled, double-blinded trial. *J Headache Pain* 2015;16:104.

117 Cömert Kiliç S, Güngörmüş M. Is arthrocentesis plus platelet-rich plasma superior to arthrocentesis plus hyaluronic acid for the treatment of temporomandibular joint osteoarthritis: a randomized clinical trial. *Int J Oral Maxillofac Surg* 2016;45:1538–44.

118 Connelly ST, Myung J, Gupta R, et al. Clinical outcomes of Botox injections for chronic temporomandibular disorders: do we understand how Botox works on muscle, pain, and the brain? *Int J Oral Maxillofac Surg* 2017;46:322–7.

119 Costa SAP, Florezi GP, Artes GE, et al. The analgesic effect of photobiomodulation therapy (830 nm) on the masticatory muscles: a randomized, double-blind study. *Braz Oral Res* 2017;18;31:e107.

120 Craane B, Dijkstra PU, Stappaerts K, et al. One-year evaluation of the effect of physical therapy for masticatory muscle pain: a randomized controlled trial. *Eur J Pain* 2012;16:737–47.

121 Doepel M, Nilner M, Ekberg E, et al. Long-term effectiveness of a prefabricated oral appliance for myofascial pain. *J Oral Rehabil* 2012;39:252–60.

122 Efeoglu C, Calis AS, Koca H, et al. A stepped approach for the management of symptomatic internal derangement of the temporomandibular joint. *J Otolaryngol Head Neck Surg* 2018;47:33.

123 Elder C, Ritenbaugh C, Aickin M, et al. Reductions in pain medication use associated with traditional Chinese medicine for chronic pain. *Perm J* 2012;16:18–23.

124 Erixon CL, Ekberg E. Self-perceived effects of occlusal appliance therapy on TMD patients: an eight-year follow-up. *Swed Dent J* 2013;37:13–22.

125 Espejo-Antúnez L, Castro-Valenzuela E, Ribeiro F, et al. Immediate effects of hamstring stretching alone or combined with ischemic compression of the masseter muscle on hamstrings extensibility, active mouth opening and pain in athletes with temporomandibular dysfunction. *J Bodyw Mov Ther* 2016;20:579–87.

126 Fernández Sanromán J, Fernández Ferro M, Costas López A, et al. Does injection of plasma rich in growth factors after temporomandibular joint arthroscopy improve outcomes in patients

with Wilkes stage IV internal derangement? A randomized prospective clinical study. *Int J Oral Maxillofac Surg* 2016;45:828–35.

127 Fernández-Ferro M, Fernández-Sanromán J, Blanco-Carrión A, et al. Comparison of intra-articular injection of plasma rich in growth factors versus hyaluronic acid following arthroscopy in the treatment of temporomandibular dysfunction: A randomised prospective study. *J Craniomaxillofac Surg* 2017;45:449–54.

128 Fouda AA. Change of site of intra-articular injection of hypertonic dextrose resulted in different effects of treatment. *Br J Oral Maxillofac Surg* 2018;56:715–8.

129 Ganti S, Shriram P, Ansari AS, et al. Evaluation of effect of glucosamine-chondroitin sulfate, tramadol, and sodium hyaluronic acid on expression of cytokine levels in internal derangement of temporomandibular joint. *J Contemp Dent Pract* 2018;19:1501–5

130 Gorrela H, Prameela J, Srinivas G, et al. Efficacy of temporomandibular joint arthrocentesis with sodium hyaluronate in the management of temporomandibular joint disorders: A prospective randomized control trial. *J Maxillofac Oral Surg* 2017;16:479–84.

131 Grossmann E, Poluha RL, Iwaki LCV, et al. Predictors of arthrocentesis outcome on joint effusion in patients with disk displacement without reduction. *Oral Surg Oral Med Oral Pathol Oral Radiol* 2018;125:382–8.

132 Guarda-Nardini L, Cadorin C, Frizziero A, et al. Interrelationship between temporomandibular joint osteoarthritis (OA) and cervical spine pain: effects of intra-articular injection with hyaluronic acid. *Cranio* 2017;35:276–82.

133 Häggman-Henrikson B, Wiesinger B, Wänman A. The effect of supervised exercise on localized TMD pain and TMD pain associated with generalized pain. *Acta Odontol Scand* 2018;76:6–12.

134 Hossameldin RH, McCain JP. Outcomes of office-based temporomandibular joint arthroscopy: a 5-year retrospective study. *Int J Oral Maxillofac Surg* 2018;47:90–7.

- 135 Kalamir A, Bonello R, Graham P, et al. Intraoral myofascial therapy for chronic myogenous temporomandibular disorder: a randomized controlled trial. *J Manipulative Physiol Ther* 2012;35:26–37.
- 136 Kalamir A, Graham PL, Vitiello AL, et al. Intra-oral myofascial therapy versus education and self-care in the treatment of chronic, myogenous temporomandibular disorder: a randomised, clinical trial. *Chiropr Man Therap* 2013;21:17.
- 137 Khawaja SN, Scrivani SJ, Holland N, et al. Effectiveness, safety, and predictors of response to botulinum toxin type A in refractory masticatory myalgia: A retrospective study. *J Oral Maxillofac Surg* 2017;75:2307–15.
- 138 Kim H, Kim K, Kim M, et al. Clinical research on the clinical effectiveness and cost-effectiveness of Chuna manual therapy for temporomandibular disorder: A study protocol for a multicenter randomized controlled trial. *Eur J Integr Med* 2019;27:27–33.
- 139 Kumar S, Kiran K, Yadav A. Temporomandibular joint arthrocentesis: A prospective study and audit of 500 joints of central India. *J Int Soc Prev Community Dent* 2018;8:124–9.
- 140 Checherita LE, Burlea LS, Stamatina O, et al. Impact of Ibruprofen medication and prosthetic esthetical treatment in elderly patients with temporal mandibular joint REV. *BRAIN* 2018;69(4): 831–6.
- 141 Li C, Long X, Deng M, et al. Osteoarthritic changes after superior and inferior joint space injection of hyaluronic acid for the treatment of temporomandibular joint osteoarthritis with anterior disc displacement without reduction: a cone-beam computed tomographic evaluation. *J Oral Maxillofac Surg* 2015;73:232–44.
- 142 Lopez-Martos R, Gonzalez-Perez LM, Ruiz-Canela-Mendez P, et al. Randomized, double-blind study comparing percutaneous electrolysis and dry needling for the management of temporomandibular myofascial pain. *Med Oral Patol Oral Cir Bucal* 2018;23:e454–62.
- 143 Loster JE, Wieczorek A. Assessment of the effectiveness of treatment for temporomandibular joint dysfunctions. *Dent Med Probl* 2014;51:72–8.



- 144 Machoň V, Sedý J, Klíma K, et al. Arthroscopic lysis and lavage in patients with temporomandibular anterior disc displacement without reduction. *Int J Oral Maxillofac Surg* 2012;41:109–13.
- 145 Madani AS, Mirmortazavi A. Comparison of three treatment options for painful temporomandibular joint clicking. *J Oral Sci* 2011;53:349–54.
- 146 Marini I, Gatto MR, Bonetti GA. Effects of superpulsed low-level laser therapy on temporomandibular joint pain. *Clin J Pain* 2010;26:611–6.
- 147 Niemelä K, Korpela M, Raustia A, et al. Efficacy of stabilisation splint treatment on temporomandibular disorders. *J Oral Rehabil* 2012;39:799–804.
- 148 Nilsson H, Vallon D, Ekberg EC. Long-term efficacy of resilient appliance therapy in TMD pain patients: a randomised, controlled trial. *J Oral Rehabil* 2011;38:713–21.
- 149 Nitecka-Buchta A, Buchta P, Tabeńska-Bosakowska E, et al. Myorelaxant effect of bee venom topical skin application in patients with RDC/TMD Ia and RDC/TMD Ib: a randomized, double blinded study. *BioMed Res Int* 2014;2014:296053.
- 150 Oliveira LB, Lopes TS, Soares C, et al. Transcranial direct current stimulation and exercises for treatment of chronic temporomandibular disorders: a blind randomised-controlled trial. *J Oral Rehabil* 2015;42:723–32.
- 151 Pihut M, Ferendiuk E, Szewczyk M, et al. The efficiency of botulinum toxin type A for the treatment of masseter muscle pain in patients with temporomandibular joint dysfunction and tension-type headache. *J Headache Pain* 2016;17:29.
- 152 Rai S, Ranjan V, Misra D, et al. Management of myofascial pain by therapeutic ultrasound and transcutaneous electrical nerve stimulation: A comparative study. *Eur J Dent* 2016;10:46–53.
- 153 Rampello A, Saccucci M, Falisi G, et al. A new aid in temporomandibular joint disorders' therapy: the universal neuromuscular immediate relaxing appliance. *J Biol Regul Homeost Agents* 2013;27:1011–9.

- 154 Schiffman EL, Velly AM, Look JO, et al. Effects of four treatment strategies for temporomandibular joint closed lock. *Int J Oral Maxillofac Surg* 2014;43:217–26.
- 155 Şentürk MF, Tüzüner-Öncül AM, Cambazoğlu M. Prospective short term comparison of outcomes after single or double puncture arthrocentesis of the temporomandibular joint. *Br J Oral Maxillofac Surg* 2016;54:26–9.
- 156 Şentürk MF, Yıldırım D, Bilgir E, et al. Long-term evaluation of single-puncture temporomandibular joint arthrocentesis in patients with unilateral temporomandibular disorders. *Int J Oral Maxillofac Surg* 2018;47:98–102.
- 157 Shedden Mora MC, Weber D, Neff A, et al. Biofeedback-based cognitive-behavioral treatment compared with occlusal splint for temporomandibular disorder: a randomized controlled trial. *Clin J Pain* 2013;29:1057–65.
- 158 Bilge Gökçen RÖHLG, Selin KIPIRDI, Uğur MERÇİ, et al. Masticatory Muscle Pain and Low-Level Laser Therapy: A Double-Blind and Placebo-Controlled Study. *Turk J Phys Med Rehab* 2011;57:31-7
- 159 Stasko J, Statelova D, Janickova M, et al. Hyaluronic acid application vs arthroscopy in treatment of internal temporomandibular joint disorders. *Bratisl Lek Listy* 2020;121:352–7.
- 160 Sveshtarov V, Nencheva-Sveshtarova S, Grozdanova R, et al. Superluminous devices versus low-level laser for temporomandibular disorders. *Acta Medica Bulgarica* 2018; 45(1):11–15.
- 161 Tajima T, Kurita K, Yuasa H, et al. Mouth-opening exercise and patient control use of NSAIDs: preliminary study of disk displacement without reduction. *Journal of Dentistry, Oral Disorders and Therapy J Dent Oral Disord Ther* 2013;1(1):1.
- 162 Talaat W, Ghoneim MM, Elsholkamy M. Single-needle arthrocentesis (Shepard cannula) vs. double-needle arthrocentesis for treating disc displacement without reduction. *Cranio* 2016;34:296–302.
- 163 Thomas H, Neelakantan RS, Thomas TK. Role of Arthrocentesis in the Management of Acute Closed Lock of TM Joint: A Pilot study. *J Maxillofac Oral Surg* 2012;11:390–3.

- 164 Thomas NJ, Aronovich S. Does adjunctive botulinum toxin A reduce pain scores when combined with temporomandibular joint arthroscopy for the treatment of concomitant temporomandibular joint arthralgia and myofascial pain? *J Oral Maxillofac Surg* 2017;75:2521–8.
- 165 Tuncer A, Nevin E, Karahan S. Temporomandibular disorders treatment: comparison of home exercise and manual therapy. *Fizyoterapi Rehabilitasyon* 2013;24(1):9–16.
- 166 Ucar M, Sarp Ü, Koca İ, et al. Effectiveness of a home exercise program in combination with ultrasound therapy for temporomandibular joint disorders. *J Phys Ther Sci* 2014;26:1847–9.
- 167 Vilanova LS, Gonçalves TM, Pimentel MJ, et al. Mastication movements and sleep quality of patients with myofascial pain: occlusal device therapy improvements. *J Prosthet Dent* 2014;112:1330–6.
- 168 Vos LM, Huddleston Slater JJ, Stegenga B. Arthrocentesis as initial treatment for temporomandibular joint arthropathy: a randomized controlled trial. *J Craniomaxillofac Surg* 2014;42:e134–9.
- 169 Wahlund K, Nilsson IM, Larsson B. Treating temporomandibular disorders in adolescents: a randomized, controlled, sequential comparison of relaxation training and occlusal appliance therapy. *J Oral Facial Pain Headache* 2015;29:41–50.
- 170 Yilmaz O, Candirli C, Balaban E, et al. Evaluation of success criteria for temporomandibular joint arthrocentesis. *J Korean Assoc Oral Maxillofac Surg* 2019 Feb;45:15–20. Erratum in: *J Korean Assoc Oral Maxillofac Surg* 2019;45:299.
- 171 Yoshida H, Sakata T, Hayashi T, et al. Evaluation of mandibular condylar movement exercise for patients with internal derangement of the temporomandibular joint on initial presentation. *Br J Oral Maxillofac Surg* 2011;49:310–3.
- 172 Zotelli VL, Grillo CM, Gil ML, et al. Acupuncture effect on pain, mouth opening limitation and on the energy meridians in patients with temporomandibular dysfunction: A randomized controlled trial. *J Acupunct Meridian Stud* 2017;10:351–9.

