

BÖLÜM 2

TEMPOROMANDİBULAR EKLEMİN MUAYENESİ VE YARDIMCI TANI ARAÇLARI

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GİRİŞ

Temporomandibular eklem (TME), insan vücudunun en önemli ve en karmaşık eklemlerinden biridir ve bunun yanı sıra başın tek hareketli eklemidir (1). Kondil başının mandibular fossaya oturması ile oluşur ve bu iki kemik yapı arasında hareketleri kolaylaştırma görevini üstlenen eklem diski vardır (2). Temporomandibular eklem bozuklukları (TMB) ise TME'yi, TME'yi destekleyen yapıları ya da her ikisini etkileyebilen kas-iskelet sistemi rahatsızlıklarından oluşan, sıklıkla karşılaşılan ve hayat kalitesini olumsuz yönde etkileyen bir hastalıktır (3-5). Kadınlarda erkeklere göre daha sık gözlenirken yaş ile görülme sıklığı artar (6, 7). Ayrıca etiyojisinde maloklüzyon, travma, psikolojik faktörler (anksiyete, depresyon), postural faktörler (anormal duruş, yutkunma bozuklukları, ağız solunumu, dilin istirahat pozisyonu gibi) ve kötü alışkanlıklar (yabancı cisim ısırma, tırnak yemek, pipo, ağızlık kullanımı gibi) da yer alır (2). TMB'nin değerlendirilmesi diş hekimleri, fizik tedavi uzmanları, psikiyatristler ve kulak burun boğaz uzmanlarının da içinde bulunduğu multidisipliner bir yaklaşım gerektirir (2).

TMB disk içi düzensizliklerden osteoartrite kadar değişik derecelerde karşımıza çıkabilir (8). Klinik olarak baş ağrısı, yüz ağrısı, boyun ve kulak ağrısı, baş dönmesi, kol veya sırtta ağrı, eklem ve çığneme kaslarında hassasiyet, eklem sesi, çene kilitlenmesi, çene hareketlerinde azalma ve deviasyon gibi bazı semptomlar görülebilirken bazen asemptomatik de ilerleyebilir. Bu nedenle klinik muayenenin yanı sıra radyolojik muayene yöntemlerine de ihtiyaç duyulmaktadır (1, 9-11).

Bu bölümde TME'nin klinik muayenesinin hangi basamaklarla yürütüldüğü ve tanı koymada kullanılabilen yardımcı araçlar ele alınacaktır.

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KAYNAKLAR

1. Okeson J. *Functional Anatomy and Biomechanics of the Masticatory System In: Management of Temporomandibular Disorders and Occlusion*. 7th ed. St. Louis, Missouri: Elsevier Health Sciences; 2014.
2. Harorlı A. *Ağız, Diş ve Çene Radyolojisi*. 1. Baskı. İstanbul: Nobel Tıp Kitapevi; 2014.
3. Ulay G, Namdar Pekiner F. Temporomandibular eklemler disfonksiyonlu bir grup hastada klinik bulguları. *Selcuk Dental Journal*.2019;6(4):287-293.
4. Suvinin TI, Reade PC, Hanes KR, et al. Temporomandibular disorder subtypes according to self-reported physical and psychosocial variables in female patients: a re-evaluation. *Journal of oral rehabilitation*. 2005;32(3):166-173.
5. Pihut M, Szuta M, Ferendiuk E, et al. Differential diagnostics of pain in the course of trigeminal neuralgia and temporomandibular joint dysfunction. *BioMed research international*. 2014;2014:563786.
6. Cahlin BJ, Dahlstrom L. No effect of glucosamine sulfate on osteoarthritis in the temporomandibular joints--a randomized, controlled, short-term study. *Oral surgery, oral medicine, oral pathology, oral radiology, and endodontics*. 2011;112(6):760-766.
7. Dym H, Israel H. Diagnosis and treatment of temporomandibular disorders. *Dental clinics of North America*. 2012;56(1):149-61, ix.
8. Yaltrık M, Palancıoğlu A, Koray M, et al. Temporomandibular eklemler bozuklukları ve teşhisi. *7tepe Klinik Dergisi*. 2017;13(2):43-50.
9. Gauer RL, Semidey MJ. Diagnosis and treatment of temporomandibular disorders. *American family physician*. 2015;91(6):378-386.
10. Cooper BC, Kleinberg I. Examination of a large patient population for the presence of symptoms and signs of temporomandibular disorders. *Cranio: the journal of craniomandibular practice*. 2007;25(2):114-126.
11. Laskin DM. Temporomandibular disorders: the past, present, and future. *Odontology*. 2007;95(1):10-15.
12. Suca S, Akçaboy C. Yüz Ağrısı ve TME Şikayeti Olan Hastalarda Klinik Muayene. *Gazi Üniversitesi Diş Hekimliği Fakültesi Dergisi*.1986;3(1):183-191.
13. Malgorzata P, Malgorzata KM, Karolina C, et al. Diagnostic of Temporomandibular Disorders and Other Facial Pain Conditions--Narrative Review and Personal Experience. *Medicina*. 2020;56(9):472. doi: 10.3390/medicina56090472.
14. Okeson JP. Evolution of occlusion and temporomandibular disorder in orthodontics: Past, present, and future. *American journal of orthodontics and dentofacial orthopedics*. 2015;147(5):216-223.
15. de Freitas RF, Ferreira MA, Barbosa GA, et al. Counselling and self-management therapies for temporomandibular disorders: a systematic review. *Journal of oral rehabilitation*. 2013;40(11):864-874.
16. Ficnar T, Middelberg C, Rademacher B, et al. Evaluation of the effectiveness of a semi-finished occlusal appliance--a randomized, controlled clinical trial. *Head & face medicine*. 2013;9:5. doi: 10.1186/1746-160X-9-5.
17. Manfredini D. *Current Concepts on Temporomandibular Disorders*. 1 ed. Berlin: Quintessence Publishing; 2010.
18. Okeson JP. *Signs and Symptoms of Temporomandibular Disorders In: Management of Temporomandibular Disorders And Occlusion*. 7 ed. St. Louis, Missouri: Elsevier Health Sciences; 2014.
19. Okeson J. *Mechanics of Mandibular Movement In: Management of Temporomandibular Disorders and Occlusion*. 7 ed. St. Louis, Missouri: Elsevier Health Sciences; 2014.
20. Kuroda M, Otonari-Yamamoto M, Sano T, et al. Diagnosis of retrodiscal tissue in painful temporomandibular joint (TMJ) by fluid-attenuated inversion recovery (FLAIR) signal intensity. *Cranio : the journal of craniomandibular practice*. 2015;33(4):271-275.

21. Kohler AA, Hugoson A, Magnusson T. Clinical signs indicative of temporomandibular disorders in adults: time trends and associated factors. *Swedish dental journal*. 2013;37(1):1-11.
22. Laskin D, Greene C, Hylander W. *Temporomandibular Disorders: an evidence-based approach to diagnosis and treatment*. 1 ed. Singapore: Quintessence Publishing; 2006.
23. De Rossi SS, Stern I, Sollecito TP. Disorders of the masticatory muscles. *Dental clinics of North America*. 2013;57(3):449-464.
24. Karibe H, Goddard G, Okubo M. Comparison of masticatory muscle myofascial pain in patients with and without a chief complaint of headache. *Cranio : the journal of craniomandibular practice*. 2014;32(1):57-62.
25. De Rossi SS, Greenberg MS, Liu F, et al. Temporomandibular disorders: evaluation and management. *The Medical clinics of North America*. 2014;98(6):1353-1384.
26. Kraaijenga S, van der Molen L, van Tinteren H, et al. Treatment of myogenic temporomandibular disorder: a prospective randomized clinical trial, comparing a mechanical stretching device (TheraBite(R)) with standard physical therapy exercise. *Cranio : the journal of craniomandibular practice*. 2014;32(3):208-216.
27. Emshoff R, Innerhofer K, Rudisch A, et al. Clinical versus magnetic resonance imaging findings with internal derangement of the temporomandibular joint: an evaluation of anterior disc displacement without reduction. *Journal of oral and maxillofacial surgery*. 2002;60(1):36-41.
28. Isberg A, Westesson PL. Steepness of articular eminence and movement of the condyle and disk in asymptomatic temporomandibular joints. *Oral surgery, oral medicine, oral pathology, oral radiology, and endodontics*. 1998;86(2):152-157.
29. Alomar X, Medrano J, Cabratosa J, et al. Anatomy of the temporomandibular joint. *Seminars in ultrasound, CT, and MR*. 2007;28(3):170-183.
30. Peck CC, Goulet JP, Lobbezoo F, et al. Expanding the taxonomy of the diagnostic criteria for temporomandibular disorders. *Journal of oral rehabilitation*. 2014;41(1):2-23.
31. Portelli M, Matarese G, Militi A, et al. Temporomandibular joint involvement in a cohort of patients with Juvenile Idiopathic Arthritis and evaluation of the effect induced by functional orthodontic appliance: clinical and radiographic investigation. *European journal of paediatric dentistry*. 2014;15(1):63-66.
32. Zakrzewska JM. Differential diagnosis of facial pain and guidelines for management. *British journal of anaesthesia*. 2013;111(1):95-104.
33. McNamara JA, Jr. The independent functions of the two heads of the lateral pterygoid muscle. *The American journal of anatomy*. 1973;138(2):197-205. doi: 10.1002/aja.1001380206.
34. Tümen DS, Arslan SG. Çiğneme kas aktivitesi ve ölçüm yöntemleri. *Dicle Tıp Dergisi*. 2007;34(4):316-322.
35. Johnstone DR, Templeton M. The feasibility of palpating the lateral pterygoid muscle. *The Journal of prosthetic dentistry*. 1980;44(3):318-23.
36. Gross A, Gale EN. A prevalence study of the clinical signs associated with mandibular dysfunction. *Journal of the American Dental Association*. 1983;107(6):932-6.
37. Wieckiewicz M, Grychowska N, Wojciechowski K, et al. Prevalence and correlation between TMD based on RDC/TMD diagnoses, oral parafunctions and psychoemotional stress in Polish university students. *BioMed research international*. 2014;2014:472346.
38. Fillingim RB, Ohrbach R, Greenspan JD, et al. Psychological factors associated with development of TMD: the OPERA prospective cohort study. *The journal of pain*. 2013;14(12):75-90.
39. Scolozzi P, Wandeler PA, Courvoisier DS. Can clinical factors predict postoperative temporomandibular disorders in orthognathic patients? A retrospective study of 219 patients. *Oral surgery, oral medicine, oral pathology and oral radiology*. 2015;119(5):531-538.
40. Kaygusuz İ, Karlıdağ T, Keleş E, et al. Temporomandibüler eklem hastalıklarında kulakla ilgili semptomlar. *The Turkish Journal of Ear Nose and Throat*. 2006;16(5):205-208.
41. Kohler AA. On temporomandibular disorders. Time trends, associated factors, treatment need and treatment outcome. *Swedish dental journal Supplement*. 2012;8:11-119.

42. Petersen PE. The World Oral Health Report 2003: continuous improvement of oral health in the 21st century--the approach of the WHO Global Oral Health Programme. *Community dentistry and oral epidemiology*. 2003;31 Suppl 1:3-23.
43. Yeşiltepe S, Miloğlu Ö, Sarica İ, et al. Romatizmal hastalıklar ve diş hekimi yaklaşımı. *Atatürk Üniversitesi Diş Hekimliği Fakültesi Dergisi*. 2018;28(4):574-582.
44. White SC, Pharoah MJ. *Oral Radyoloji İlkeler ve Yorumlama*. (Akkaya N, Yandımatı ZÇ, Çev. Ed.). Ankara: Palme Yayınevi; 2018.
45. Jivnani HM, Tripathi S, Shanker R, et al. A Study to Determine the Prevalence of Temporomandibular Disorders in a Young Adult Population and its Association with Psychological and Functional Occlusal Parameters. *Journal of prosthodontics*. 2019;28(1): 445-449.
46. Üner O, Yücel Eroğlu E, İmirzalıoğlu P. Toplumumuzda Genç Erişkinlerde Kraniomandibular Disfonksiyon Prevalansının Araştırılması. *Gazi Üniversitesi Diş Hekimliği Fakültesi Dergisi*. 1994; 11(1):13-21.
47. Solberg WK, Woo MW, Houston JB. Prevalence of mandibular dysfunction in young adults. *Journal of the American Dental Association*. 1979;98(1):25-34.
48. Griffiths RH. Report of the president's conference on the examination, diagnosis, and management of temporomandibular disorders. *Journal of the American Dental Association*. 1983;106(1):75-77.
49. Friction JR, Schiffman EL. Reliability of a craniomandibular index. *Journal of dental research*. 1986;65(11):1359-64.
50. Kurt H, Mumcu E, Ateş M. Temporomandibular rahatsızlıkların teşhisinde Temporomandibular Rahatsızlıklar/Araştırma Teşhis Kriterlerinin (TMR/ATK) kullanımı. *Journal of Istanbul University Faculty of Dentistry*. 40(1-2):1-5.
51. Helkimo M. Studies on function and dysfunction of the masticatory system. IV. Age and sex distribution of symptoms of dysfunction of the masticatory system in Lapps in the north of Finland. *Acta odontologica Scandinavica*. 1974;32(4):255-67.
52. Friction JR, Schiffman EL. The craniomandibular index: validity. *The Journal of prosthetic dentistry*. 1987;58(2):222-228.
53. Dworkin SF, Huggins KH, LeResche L, et al. Epidemiology of signs and symptoms in temporomandibular disorders: clinical signs in cases and controls. *Journal of the American Dental Association*. 1990;120(3):273-281.
54. Dworkin SF, Huggins KH, Wilson L, et al. A randomized clinical trial using research diagnostic criteria for temporomandibular disorders-axis II to target clinic cases for a tailored self-care TMD treatment program. *Journal of orofacial pain*. 2002;16(1):48-63.
55. Ertaş Ü, Ataoğlu M, Aşçı YE. Temporomandibular Eklem Rahatsızlıkları Şiddetinin Fonseca Anamnestik Anketi ile Sınıflandırılarak Hastaların Farkındalıklarının Ölçülmesi. *Türkiye Klinikleri Journal of Dental Sciences*. 2021;27(4): 545-550.
56. Fonseca DM, Bonfate G, Valle AL. Diagnóstico pela anamnese da disfunção craniomandibular. *Rev Gaúcha Odontol*. 1994;42:23-28.
57. Yılmaz SG, Alkis HT. Evaluation of the possible relationship between obesity and temporomandibular joint disorders. *Nigerian journal of clinical practice*. 2020;23(4):476-480.
58. Yılmaz F, Gunen Yılmaz S, Sözel H. The Relationship Of Myogenic Temporomandibular Disorders With Depression And Health-Related Quality Of Life In Non-Dialysis Chronic Kidney Disease. *Akdeniz Tıp Dergisi*. 2021;7(3):407-414.
59. Schiffman E, Ohrbach R, Truelove E, et al. Diagnostic Criteria for Temporomandibular Disorders (DC/TMD) for Clinical and Research Applications: recommendations of the International RDC/TMD Consortium Network* and Orofacial Pain Special Interest Group. *Journal of oral & facial pain and headache*. 2014;28(1):6-27.