

Bölüm 7

YOĞUN BAKIM ÜNİTESİ'NDE DELİRYUM

Ali HASPOLAT¹

Ali Şefik KÖPRÜLÜ²

TANIMI VE ÖNEMİ

Deliryum Amerikan Psikiyatri Birliği'nin Ruhsal Bozuklukların Tanısal ve İstatistiksel Sınıflandırma El Kitabının 2014 yılında yenilenen 5. baskısında (DSM-5) "Nörokognitif Bozukluklar" başlığı altında dikkat, çevresel farkındalık, biliş ve/veya algı olarak adlandırılan bilişsel fonksiyonlarda dalgalanmalar şeklinde akut (saatler veya günler içinde başlayan) bozulmalarla seyreden bir sendrom olarak tanımlanmıştır⁽¹⁾. Doğrudan bir hastalık, psikoaktif maddelerin zehirlenmesi veya çekilmesi, ilaç kullanımı, toksinlerin etkileri, stres veya yukarıda belirtilen tüm faktörlerin kombine etkisinden kaynaklanan akut, hayatı tehdit eden ancak erken tanı ve yeterli tedavisiyle genellikle geri dönüşümlü bir merkezi sinir sistemi bozukluğudur. Olguların anlamlı bir kısmında beyin işlevleri eski haline dönebilir. Latince "aklını yitirmek" anlamına gelen deliryum, terminoloji karmaşası ve tanı zorluğu nedeniyle uzun yıllar boyunca birçok klinisyen tarafından akut konfüzyon, akut beyin sendromu, yoğun bakım sendromu, yoğun bakım psikozu şeklinde pek çok isimle anılmış, yanlışlıkla demans, depresyon, mani, akut bir şizofrenik reaksiyon veya yaşlılığın bir parçası olarak algılanmıştır. Diğer terminolojiler bu durumun yoğun bakımda yatmanın bir parçası ve doğal sonucu olarak algılanması ve konunun önemsizliğine neden olduğu için "deliryum" ismi tercih edilmiştir^(2,3). Deliryum için ilk modern tanı ölçütleri 1980'de yayınlanan DSM-III'te belirtilmiş, 1987'de yayınlanan DSM III-R, 1994'de yayınlanan DSM-IV ve 2014 yılında yayınlanan DSM-5'te yeniden düzenlenerek son şeklini almıştır.

Deliryum, hospitalize hastalarda, özellikle de yoğun bakım hastalarında sık görülen ciddi bir problem olmakla birlikte prognoz üzerindeki olumsuz etkileri henüz yeni kabul edilmiştir. Hastane yatış sürelerinin uzaması, bilişsel bozuklukların insidansında artış, artmış ek komplikasyon oranları, uzamış mekanik venti-

¹ Dr. Öğretim Üyesi, Anesteziyoloji ve Reanimasyon, Şişli Meslek Yüksek Okulu, ali.haspolat@sisli.edu.tr

² Doç. Dr., Yeni Yüzyıl Üniversitesi Tıp Fakültesi Anesteziyoloji ve Reanimasyon ABD., askoprulu@yahoo.com

Sonuç olarak deliryumunun, akut beyin fonksiyon bozukluğunun uzun süreli sonuçları olan yaygın ve ciddi bir klinik belirtisi olduğunu unutmamak gerekir. Bu nedenle, deliryum için rutin izlem, YBÜ takip-tedavisinin önemli bir parçasıdır. Sadece yoğun bakım üniteleri değil, özellikle yaşlı hastaların interne edildiği diğer klinikler de hastalarını rutin olarak deliryum açısından izlemeli ve deliryumu önleyici stratejiler uygulamalıdır. Risk düzeyinin belirlenmesi, deliryumun nedensel faktörlerinden kaçınılması, çok faktörlü tedavinin erken uygulanması ve farmakolojik tedavi dahil deliryumunun önlenmesi, hastaneye kabulden taburculuğa kadar tüm tıbbi personelin, özellikle hekimlerin standart stratejilerinden biri olmalıdır.

KAYNAKLAR

1. DMS-5: American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, 5th edition. Washington, D.C., American Psychiatric Association, 2013
2. McGuire BE, Basten CJ, Ryan CJ, Gallagher J. Intensive care unit syndrome: A dangerous misnomer. *Arch Intern Med* 2000; 160:906-9
3. Ely EW, Gautam S, Margolin R, et al. The impact of delirium in the intensive care unit on hospital length of stay. *Intensive Care Med* 2001; 27:1892-900
4. Kotfis K, Marra A, Ely EW. ICU delirium - a diagnostic and therapeutic challenge in the intensive care unit. *Anesthesiology Intensive Therapy*, 2018; 50(2):160-167, doi: 10.5603/AIT.a2018.0011
5. Ely EW, Shintani A, Truman B, et al. Delirium as a predictor of mortality in mechanically ventilated patients in the intensive care unit. *JAMA*. 2004; 291(14): 1753-1762, doi: 10.1001/jama.291.14.1753, indexed in Pubmed: 15082703
6. Pandharipande PP, Girard TD, Jackson JC, et al. BRAIN-ICU Study Investigators. Long-term cognitive impairment after critical illness. *N Engl J Med*. 2013; 369(14): 1306-1316, doi: 10.1056/NEJMoa1301372, indexed in Pubmed: 24088092
7. Girard TD, Jackson JC, Pandharipande PP, et al. Delirium as a predictor of long-term cognitive impairment in survivors of critical illness. *Critical Care Med*. 2010; 38(7): 1513-1520, doi: 10.1097/CCM.0b013e3181e47be1, indexed in Pubmed: 20473145
8. Peterson JF, Pun BT, Dittus RS, et al. Delirium and its motoric subtypes: a study of 614 critically ill patients. *J Am Geriatr Soc*. 2006; 54(3): 479-484, doi: 10.1111/j.1532-5415.2005.00621.x, indexed in Pubmed: 16551316
9. Salluh JJ, Soares M, Teles JM, et al. Delirium Epidemiology in Critical Care Study Group. Delirium epidemiology in critical care (DECCA): an international study. *Crit Care*. 2010; 14(6): R210, doi: 10.1186/cc9333, indexed in Pubmed: 21092264
10. Card E, Pandharipande P, Tomes C, et al. Emergence from general anaesthesia and evolution of delirium signs in the post-anaesthesia care unit. *Br J Anaesth*. 2015; 115(3): 411-417, doi: 10.1093/bja/aeu442, indexed in Pubmed: 25540068
11. Schuurmans MJ, Duursma SA, Shortridge-Baggett LM. Early recognition of delirium: Review of the literature. *J Clin Nurs* 2001; 10:721-9
12. Rapp CG, Mentis JC, Titler MG. Acute confusion/delirium protocol. *J Gerontol Nurs* 2001; 27:21-33

13. Robinson TN, Raeburn CD, Tran ZV, et al. Motor subtypes of postoperative delirium in older adults. *Arch Surg.* 2011; 146(3): 295–300, doi: 10.1001/archsurg.2011.14, indexed in Pubmed: 21422360
14. Francis J, Martin D, Kapoor WN. A prospective study of delirium in hospitalized elderly. *JAMA* 1990; 263:1097-101
15. Inouye SK. The dilemma of delirium: Clinical and research controversies regarding diagnosis and evaluation of delirium in hospitalized elderly medical patients. *Am J Med* 1994; 97:278-88
16. Morandi A, Piva S, Ely EW, et al. Worldwide Survey of the Assessing Pain, Both Spontaneous Awakening and Breathing Trials, Choice of Drugs, Delirium Monitoring/Management, Early Exercise/Mobility, and Family Empowerment” (ABCDEF) Bundle. *Crit Care Med.* 2017; 45(11): e1111–e1122, doi: 10.1097/CCM.0000000000002640, indexed in Pubmed: 28787293
17. Hayhurst CJ, Pandharipande PP, Hughes CG. Intensive care unit delirium: a review of diagnosis, prevention, and treatment. *Anesthesiology.* 2016; 125(6): 1229–1241, doi: 10.1097/ALN.0000000000001378, indexed in Pubmed: 27748656
18. Vasilevskis EE, Han JH, Hughes CG, et al. Epidemiology and risk factors for delirium across hospital settings. *Best Pract Res Clin Anaesthesiol.* 2012; 26(3): 277–287, doi: 10.1016/j.bpa.2012.07.003, indexed in Pubmed: 23040281.
19. Jones RN, Fong TG, Metzger E, et al. Aging, brain disease, and reserve: implications for delirium. *Am J Geriatr Psychiatry.* 2010; 18(2): 117–127, doi: 10.1097/JGP.0b013e3181b972e8, indexed in Pubmed: 20104068.
20. Vaurio LE, Sands LP, Wang Y, et al. Postoperative delirium: the importance of pain and pain management. *Anesth Analg.* 2006; 102(4): 1267–1273, doi: 10.1213/01.ane.0000199156.59226.af, indexed in Pubmed: 16551935.
21. Pandharipande PP, Pun BT, Herr DL, et al. Effect of sedation with dexmedetomidine vs lorazepam on acute brain dysfunction in mechanically ventilated patients: the MENDS randomized controlled trial. *JAMA.* 2007; 298(22): 2644–2653, doi: 10.1001/jama.298.22.2644, indexed in Pubmed: 18073360.
22. Van Rompaey B, Schuurmans MJ, Shortridge-Baggett LM, et al. Risk factors for intensive care delirium: a systematic review. *Intensive Crit Care Nurs.* 2008; 24(2): 98–107, doi: 10.1016/j.iccn.2007.08.005, indexed in Pubmed: 17949984.
23. Riker RR, Shehabi Y, Bokesch PM, et al. SEDCOM (Safety and Efficacy of Dexmedetomidine Compared With Midazolam) Study Group. Dexmedetomidine vs midazolam for sedation of critically ill patients: a randomized trial. *JAMA.* 2009; 301(5): 489–499, doi: 10.1001/jama.2009.56, indexed in Pubmed: 19188334.
24. Steinberg BE, Sundman E, Terrando N, et al. Neural control of inflammation: implications for perioperative and critical care. *Anesthesiology.* 2016; 124(5): 1174–1189, doi: 10.1097/ALN.0000000000001083, indexed in Pubmed: 26982508.
25. Schreiber MP, Colantuoni E, Bienvenu OJ, et al. Corticosteroids and transition to delirium in patients with acute lung injury. *Crit Care Med.* 2014; 42(6): 1480–1486, doi: 10.1097/CCM.0000000000000247, indexed in Pubmed: 24589640.
26. Flacker JM, Lipsitz LA. Neural mechanisms of delirium: current hypotheses and evolving concepts. *J Gerontol A Biol Sci Med Sci.* 1999; 54(6): B239–B246, indexed in Pubmed: 10411009.
27. Hshieh TT, Fong TG, Marcantonio ER, et al. Cholinergic deficiency hypothesis in delirium: a synthesis of current evidence. *J Gerontol A Biol Sci Med Sci.* 2008; 63(7): 764–772, indexed in Pubmed: 18693233.
28. Barr J, Fraser GL, Puntillo K et al.; American College of Critical Care Medicine. Clinical practice guidelines for the management of pain, agitation and delirium in adult patients in the intensive care unit. *Crit Care Med.* 2013 Jan; 41(1):263-306. doi: 10.1097/CCM.0b013e3182783b72, indexed in Pubmed: 23269131.

29. Baron R, Binder A, Biniek R, et al. DAS-Taskforce 2015. Evidence and consensus based guideline for the management of delirium, analgesia and sedation in intensive care medicine. Revision 2015 (DAS- Guideline 2015) short version. Ger Med Sci. 2015; 13: Doc19, doi: 10.3205/000223, indexed in Pubmed: 26609286.
30. Vincent JL, Shehabi Y, Walsh TS, et al. Comfort and patient-centred care without excessive sedation: the eCASH concept. Intensive Care Med. 2016; 42(6): 962–971, doi: 10.1007/s00134-016-4297-4, indexed in Pubmed: 27075762.
31. Luetz A, Heymann A, Radtke FM, et al. Different assessment tools for intensive care unit delirium: which score to use? Crit Care Med. 2010; 38(2): 409–418, doi: 10.1097/CCM.0b013e-3181cabb42, indexed in Pubmed: 20029345.
32. Ely EW, Inouye SK, Bernard GR, et al. Delirium in mechanically ventilated patients: validity and reliability of the confusion assessment method for the intensive care unit (CAM-ICU). JAMA. 2001; 286(21): 2703–2710, indexed in Pubmed: 11730446.
33. Bergeron N, Dubois MJ, Dumont M, et al. Intensive Care Delirium Screening Checklist: evaluation of a new screening tool. Intensive Care Med. 2001; 27(5): 859–864, indexed in Pubmed: 11430542.
34. Inouye SK, van Dyck CH, Alessi CA, et al. Clarifying confusion: the confusion assessment method. A new method for detection of delirium. Ann Intern Med. 1990; 113(12): 941–948, indexed in Pubmed: 2240918.
35. Gusmao-Flores D, Salluh JI, Chalhub RÁ, et al. The confusion assessment method for the intensive care unit (CAM-ICU) and intensive care delirium screening checklist (ICDSC) for the diagnosis of delirium: a systematic review and meta-analysis of clinical studies. Crit Care. 2012; 16(4): R115, doi: 10.1186/cc11407, indexed in Pubmed: 22759376.
36. Brummel NE, Vasilevskis EE, Han JHo, et al. Implementing delirium screening in the ICU: secrets to success. Crit Care Med. 2013; 41(9): 2196–2208, doi: 10.1097/CCM.0b013e31829a6f1e, indexed in Pubmed: 23896832.
37. Van den Boogaard M, Slooter AJC, Brüggemann RJM, et al. REDUCE Study Investigators. Effect of Haloperidol on Survival Among Critically Ill Adults With a High Risk of Delirium: The REDUCE Randomized Clinical Trial. JAMA. 2018; 319(7): 680–690, doi: 10.1001/jama.2018.0160, indexed in Pubmed: 29466591.
38. Hakim SM, Othman AI, Naoum DO. Early treatment with risperidone for subsyndromal delirium after on-pump cardiac surgery in the elderly: a randomized trial. Anesthesiology. 2012; 116(5): 987–997, doi: 10.1097/ALN.0b013e31825153cc, indexed in Pubmed: 22436797.
39. Sauë AMC, Slooter AJC, Veldhuijzen DS, et al. Intraoperative dexmedetomidine and delirium after cardiac surgery: a randomized clinical trial. Anesth Analg. 2014; 119(5): 1046–1052, doi: 10.1213/ANE.0000000000000248, indexed in Pubmed: 24810262.
40. Gamberini M, Bolliger D, Lurati Buse GA, et al. Rivastigmine for the prevention of postoperative delirium in elderly patients undergoing elective cardiac surgery--a randomized controlled trial. Crit Care Med. 2009; 37(5): 1762–1768, doi: 10.1097/CCM.0b013e31819da780, indexed in Pubmed: 19325490.
41. Liptzin B, Laki A, Garb JL, et al. Donepezil in the prevention and treatment of post-surgical delirium. Am J Geriatr Psychiatry. 2005; 13(12): 1100–1106, doi: 10.1176/appi.ajgp.13.12.1100, indexed in Pubmed: 16319303.
42. Morandi A, Hughes CG, Thompson JL, et al. Statins and delirium during critical illness: a multicenter, prospective cohort study. Crit Care Med. 2014; 42(8): 1899–1909, doi: 10.1097/CCM.0000000000000398, indexed in Pubmed: 24810528.
43. Page VJ, Davis D, Zhao XB, et al. Statin use and risk of delirium in the critically ill. Am J Respir Crit Care Med. 2014; 189(6): 666–673, doi: 10.1164/rccm.201306-1150OC, indexed in Pubmed: 24417431.

44. ICU delirium (2020). Terminology and mnemonics (08.02.2020 tarihinde <https://www.icudelirium.org/medical-professionals/terminology-mnemonics> adresinden ulaşılmıştır).
45. Shehabi Y, Bellomo R, Kadiman S et al.; Sedation Practice in Intensive Care Evaluation (SPICE) Study Investigators and the Australian and New Zealand Intensive Care Society Clinical Trials Group. Sedation Intensity in the First 48 Hours of Mechanical Ventilation and 180-Day Mortality: A Multinational Prospective Longitudinal Cohort Study. *Crit Care Med.* 2018 Jun; 46(6): 850-859. doi: 10.1097/CCM.0000000000003071.
46. Pandharipande PP, Pun BT, Herr DL, et al. Effect of sedation with dexme- detomidine vs lorazepam on acute brain dysfunction in mechanically ventilated patients: the MENDS randomized controlled trial. *JAMA.* 2007; 298(22): 2644-2653, doi: 10.1001/jama.298.22.2644, indexed in Pubmed: 18073360.
47. Riker RR, Shehabi Y, Bokesch PM, et al. SEDCOM (Safety and Efficacy of Dexmedetomidine Compared With Midazolam) Study Group. Dexme- detomidine vs midazolam for sedation of critically ill patients: a rando- mized trial. *JAMA.* 2009; 301(5): 489-499, doi: 10.1001/jama.2009.56, indexed in Pubmed: 19188334.
48. Djaiani G, Silvertown N, Fedorko L, et al. Dexmedetomidine versus pro- pofol sedation reduces delirium after cardiac surgery: a randomized controlled trial. *Anesthesiology.* 2016; 124(2): 362-368, doi: 10.1097/ ALN.0000000000000951, indexed in Pubmed: 26575144.
49. Strøm T, Martinussen T, Toft P. A protocol of no sedation for critically ill patients receiving mechanical ventilation: a randomised trial. *Lancet.* 2010; 375(9713): 475-480, doi: 10.1016/S0140-6736(09)62072-9, inde- xed in Pubmed: 20116842.
50. Patel SB, Poston JT, Pohlman A, et al. Rapidly reversible, sedation-related delirium versus persistent delirium in the intensive care unit. *Am J Respir Crit Care Med.* 2014; 189(6): 658-665, doi: 10.1164/rccm.201310- -1815OC, indexed in Pubmed: 24423152.
51. Skrobik YK, Bergeron N, Dumont M, et al. Olanzapine vs haloperidol: treating delirium in a critical care setting. *Intensive Care Med.* 2004; 30(3): 444-449, doi: 10.1007/s00134-003-2117-0, indexed in Pubmed: 14685663.
52. Devlin JW, Roberts RJ, Fong JJ, et al. Efficacy and safety of quetiapine in critically ill patients with delirium: a prospective, multicenter, ran- domized, double-blind, placebo-controlled pilot study. *Crit Care Med.* 2010; 38(2): 419-427, doi: 10.1097/CCM.0b013e3181b9e302, indexed in Pubmed: 19915454.
53. Reade MC, Eastwood GM, Bellomo R, et al. DahLIA Investigators, Au- stralian and New Zealand Intensive Care Society Clinical Trials Group. Effect of Dexmedetomidine Added to Standard Care on Ventilator-Free Time in Patients With Agitated Delirium: A Randomized Clinical Trial. *JAMA.* 2016; 315(14): 1460-1468, doi: 10.1001/jama.2016.2707, indexed in Pubmed: 26975647.
54. Carrasco G, Baeza N, Cabré L, et al. Dexmedetomidine for the treatment of hyperactive delirium refractory to haloperidol in nonintubated icu patients: a nonrandomized controlled trial. *Crit Care Med.* 2016; 44(7): 1295-1306, doi: 10.1097/CCM.0000000000001622, indexed in Pubmed: 26925523.
55. Pohlman MC, Schweickert WD, Pohlman AS, et al. Early physical and occupational therapy in mechanically ventilated, critically ill patients: a randomised controlled trial. *Lancet.* 2009; 373(9678): 1874-1882, doi: 10.1016/S0140-6736(09)60658-9, indexed in Pubmed: 19446324.
56. Litton E, Carnegie V, Elliott R, et al. The efficacy of earplugs as a sleep hygiene strategy for reducing delirium in the ICU: A Systematic Review and Meta-Analysis. *Crit Care Med.* 2016; 44(5): 992-999, doi: 10.1097/ CCM.0000000000001557, indexed in Pubmed: 26741578.
57. Kondili E, Alexopoulou C, Xirouchaki N, et al. Effects of propofol on sleep quality in mechanically ventilated critically ill patients: a physiological study. *Intensive Care Med.* 2012; 38(10): 1640-1646, doi: 10.1007/ s00134-012-2623-z, indexed in Pubmed: 22752356.

58. Alexopoulou C, Kondili E, Diamantaki E, et al. Effects of dexmedetomidine on sleep quality in critically ill patients: a pilot study. *Anesthesiology*. 2014; 121(4): 801–807, doi: 10.1097/ALN.0000000000000361, indexed in Pubmed: 24988068.
59. Hatta K, Kishi Y, Wada K, et al. DELIRIA-J Group. Preventive effects of ramelteon on delirium: a randomized placebo-controlled trial. *JAMA Psychiatry*. 2014; 71(4): 397–403, doi: 10.1001/jamapsychiatry.2013.3320, indexed in Pubmed: 24554232.
60. Hatta K, Kishi Y, Wada K, et al. DELIRIA-J Group. Preventive effects of suvorexant on delirium: a randomized placebo-controlled trial. *J Clin Psychiatry*. 2017; 78(8): e970–e979, doi: 10.4088/JCP.16m11194, indexed in Pubmed: 28767209.
61. Skrobik Y, Duprey MS, Hill NS, et al. Low-dose nocturnal dexmedetomidine prevents ICU delirium. A randomized, placebo-controlled trial. *Am J Respir Crit Care Med*. 2018; 197(9): 1147–1156, doi: 10.1164/rccm.201710-1995OC, indexed in Pubmed: 29498534.