

BÖLÜM 5

DİYABETES MELLİTUS VE PSİKİYATRİK HASTALIKLAR



Betül UYAR¹

GİRİŞ

Diyabetes mellitus (DM) insülin sekresyonundan, insülin aktivitesinden veya her ikisinden de kaynaklanabilen hiperglisemi ile karakterize bir grup metabolik bozuktur.

DM ve psikiyatrik bozuklukların birlikteliği yıllardır hem endokrinologların hem de ruh sağlığı uzmanlarının ortak ilgi alanı olmuştur. Thomas Willis 17. yüzyılda, diyabetin “uzun süren üzüntü ve depresyondan” kaynaklandığını öne sürmüştür. Sir Henry Maudsley, 1879’da yayınlanan “The Pathology of Mind” adlı eserinde “Diyabet, deliliğin hakim olduğu ailelerde sıklıkla kendini gösteren bir hastalıktır” yorumunu yapmıştır (1).

DM ve psikiyatrik bozuklukların ilişkisi çift yönlüdür ve her ikisi de birbirini birden fazla mekanizma üzerinden etkiler. DM ve psikiyatrik bozuklukların komorbiditesi farklı patternlerde bulunabilir. Birincisi iki hastalık, bağımsız durumlar olarak ortaya çıkabilir. Böyle bir senaryoda her ikisi de bağımsız ve paralel patojenik yolların sonucudur. İkincisi, DM’nin seyri, psikiyatrik bozuklukların ortaya çıkmasıyla komplike olabilir. Bu gibi durumlarda DM, psikiyatrik bozuklukların patogeneze katkıda bulunur. Bu bağlamda psikiyatrik bozuklukların ortaya çıkmasına çeşitli biyolojik ve psikolojik faktörler aracılık etmektedir. Üçüncüsü, depresyon ve şizofreni gibi belirli psikiyatrik bozukluklar, DM

¹ Dr. Öğr. Üyesi, Dicle Üniversitesi, Tıp Fakültesi, Dahili Tıp Bilimleri Bölümü, Ruh Sağlığı ve Hastalıkları AD., betuluyar@hotmail.com



KAYNAKLAR

1. Maudsley H. The Pathology of Mind Being the Third Edition of the Second Part of the Physiology & Pathology of Mind, Recast, Enlarged, and Rewritten by Henry Maudsley: Macmillan; 1879.
2. Balhara YPS. Diabetes and psychiatric disorders. *Indian journal of endocrinology and metabolism*. 2011;15(4): 274.
3. Goldney RD, Phillips PJ, Fisher LJ, et al. Diabetes, depression, and quality of life: a population study. *Diabetes Care*. 2004;27: 1066-1070.
4. Hutter N, Schnurr A, Baumeister H. Healthcare costs in patients with diabetes mellitus and comorbid mental disorders--a systematic review. *Diabetologia*. 2010;53:2470-2479.
5. Gonzalez JS, Safren SA, Cagliero E, et al. Depression, self-care, and medication adherence in type 2 diabetes: relationships across the full range of symptom severity. *Diabetes Care*. 2007;30:2222-2227.
6. Lustman PJ, Anderson RJ, Freedland KE, et al. Depression and poor glycemic control: a meta-analytic review of the literature. *Diabetes Care*. 2000;23:934-942.
7. Bryden KS, Dunger DB, Mayou RA, et al. Poor prognosis of young adults with type 1 diabetes: a longitudinal study. *Diabetes Care*. 2003;26:1052-1057.
8. Das-Munshi J, Stewart R, Ismail K, et al. Diabetes, common mental disorders, and disability: findings from the UK National Psychiatric Morbidity Survey. *Psychosomatic Medicine*. 2007;69:543-550.
9. Centorrino F, Mark TL, Talamo A, Oh K, Chang J. Health and economic burden of metabolic comorbidity among individuals with bipolar disorder. *Journal of Clinical Psychopharmacology*. 2009;29:595-600.
10. Katon W J, Lin EH, Williams LH, et al. Comorbid depression is associated with an increased risk of dementia diagnosis in patients with diabetes: a prospective cohort study. *Journal of general internal medicine*. 2010; 25(5), 423-429.
11. Egede LE, Nietert PJ, Zheng D. "Depression and all-cause and coronary heart disease mortality among adults with and without diabetes." *Diabetes care*. 2005; 28.6: 1339-1345.
12. Egede LE, Zheng D. "Independent factors associated with major depressive disorder in a national sample of individuals with diabetes." *Diabetes care*. 2003; 26.1: 104-111.
13. Nouwen A, Winkley K, Twisk J, et al. Type 2 diabetes mellitus as a risk factor for the onset of depression: a systematic review and meta-analysis. *Diabetologia*. 2010; 53: 2480-2486.
14. Lin EH, Von Korff MV. Mental disorders among persons with diabetes-Results from the World Mental Health Surveys. *Journal of Psychosomatic Research*. 2008; 65: 571-580.
15. Fischer L, Skaff MM, Mullan JT, et al. A longitudinal study of affective and anxiety disorders, depressive affect and diabetes distress in adults with type 2 diabetes. *Diabetic Medicine*. 2008; 25: 1096-1101.
16. Anderson RJ, Freedland KE, Clouse RE, et al. The prevalence of comorbid depression in adults with diabetes. A metaanalysis. *Diabetes Care*. 2001; 24: 1069-1078.
17. Katon WJ, Rutter C, Simon G, et al. The association of comorbid depression with mortality in patients with type 2 diabetes. *Diabetes Care*. 2005;28: 2668-2672.



18. Egede LE, Zheng D, Simpson K. Comorbid depression is associated with increased health care use and expenditures in individuals with diabetes. *Diabetes Care*. 2002; 25:464-470.
19. Pan A, Lucas M, Sun Q, et al. Bidirectional association between depression and type 2 diabetes mellitus in women. *Archives of Internal Medicine*. 2010;170:1884-1891.
20. Talbot F, Nouwen A. A review of the relationship between depression and diabetes in adults: is there a link? *Diabetes Care*. 2000;23: 1556-1562.
21. Engum A, Mykletun A, Midthjell K, et al. Depression and Diabetes. A large population-based study of sociodemographic, lifestyle and clinical factors associated with depression in type 1 and type 2 diabetes. *Diabetes Care*. 2005; 28: 1904-1909.
22. Katon W, Fan MY, Unützer J, et al. Depression and diabetes: a potentially lethal combination. *Journal of General Internal Medicine*. 2008; 23: 1571-1578.
23. Che T, Teng X, Huang Q, et al. Agomelatine versus fluoxetine in glycemic control and treating depressive and anxiety symptoms in type 2 diabetes mellitus subjects: a single-blind randomized controlled trial. *Neuropsychiatric Disease and Treatment* . 2018; 14: 1527-1533.
24. Rabkin J, Quitkin F, Harrison W, et al. Adverse reactions to monoamine oxidase inhibitors. Part I. A comparative study. *Journal of clinical psychopharmacology*. 1984; 4(5):270-278.
25. Gehlawat P, Gupta R, Rajput R, et al. Diabetes with comorbid depression: role of SSRI in better glycemic control. *Asian journal of psychiatry*. 2013; 6(5): 364-368.
26. Lustman PJ, Freedland KE, Griffith LS, et al. Fluoxetine for depression in diabetes: a randomized double-blind placebo-controlled trial. *Diabetes care*. 2000; 23(5): 618-623.
27. Huang CJ, Chiu HC, Lee MH, et al. Prevalence and incidence of anxiety disorders in diabetic patients: a national population-based cohort study. *General Hospital Psychiatry*. 2011;33:8-15.
28. Engum A. The role of depression and anxiety in onset of diabetes in a large population-based study. *Journal of Psychosomatic Research*. 2007;62:31-38.
29. Grigsby AB, Anderson RJ, Freedland KE, et al. Prevalence of anxiety in adults with diabetes: a systematic review. *Journal of Psychosomatic Research*. 2002;53:1053-1060.
30. Green L, Feher M, Catalan J. Fears and phobias in people with diabetes. *Diabetes/Metabolism Research and Reviews*. 2000;16:287-293.
31. Group E. 'Schizophrenia and Diabetes 2003'Expert Consensus Meeting, Dublin, 3-4 October 2003: Consensus Summary. *The British journal of psychiatry*. 2004; Supplement, 47: 112-114.
32. Lamberti J, Crilly J, Maharaj K. Prevalence of adult-onset diabetes among out-patients receiving anti-psychotic drugs. *Schizophrenia Research*. 2003;60 (Suppl):360.
33. Vinogradova Y, Coupland C, Hippisley-Cox J, et al. Effects of severe mental illness on survival of people with diabetes. *The British Journal of Psychiatry*, 2010;197(4), 272-277.
34. Schoepf D, Potluri R, Uppal H, et al. Type-2 diabetes mellitus in schizophrenia: increased prevalence and major risk factor of excess mortality in a naturalistic 7-year follow-up. *European Psychiatry*. 2012; 27(1): 33-42.
35. Chen D, Du XD, Yin GZ, et al. Impaired glucose tolerance in first-episode drug-naive patients with schizophrenia: relationships with clinical phenotypes and cognitive deficits. *Psychological medicine*. 2016; 46(15):3219-3230.
36. Thakore JH, Mann JN, Vlahos I, et al. Increased visceral fat distribution in drug-naive and drug-free patients with schizophrenia. *International journal of obesity*. 2002;26(1): 137-141.



37. Cukierman-Yaffe T, Gerstein HC, Williamson JD, et al. Action to Control Cardiovascular Risk in Diabetes-Memory in Diabetes (ACCORD-MIND) Investigators. Relationship between baseline glycemic control and cognitive function in individuals with type 2 diabetes and other cardiovascular risk factors: the action to. *Diabetes care*. 2009; 32(2): 221-226.
38. Arvanitakis Z, Wilson RS, Bienias JL, et al. Bennett, "Diabetes mellitus and risk of Alzheimer disease and decline in cognitive function," *Archives of Neurology*. 2004; 61(5): 661-666.
39. Breteler MMB. "Vascular involvement in cognitive decline and dementia. Epidemiologic evidence from the Rotterdam study and the Rotterdam scan study," *Annals of the New York Academy of Sciences*. 2000; 903:457-465.
40. Strachan MWJ, Reynolds RM, Marioni RE, et al. "Cognitive function, dementia and type 2 diabetes mellitus in the elderly," *Nature Reviews Endocrinology*. 2011; 7(2): 108-114.
41. Cheng G, Huang C, Deng H, et al. Diabetes as a risk factor for dementia and mild cognitive impairment: a meta-analysis of longitudinal studies. *Internal medicine journal*. 2021; 42(5), 484-491.
42. Biessels GJ, Staekenborg S, Brunner E, et al. Risk of dementia in diabetes mellitus: a systematic review. *The Lancet Neurology*. 2006; 5(1): 64-74.
43. Biessels GJ, Koffeman A, Scheltens P. Diabetes and cognitive impairment. *Journal of neurology*. 2006; 253(4): 477-482.
44. Van den Berg E, Reijmer YD, De Bresser J, et al. A 4 year follow-up study of cognitive functioning in patients with type 2 diabetes mellitus. *Diabetologia*. 2010; 53(1): 58-65.
45. Kloppenborg RP, Van den Berg E, Kappelle LJ, et al. Diabetes and other vascular risk factors for dementia: which factor matters most? A systematic review. *European journal of pharmacology*. 2008; 585(1): 97-108.
46. Wilson JE, Mart MF, Cunningham C, et al. Delirium. *Nature Reviews Disease Primers*. 2020; 6(1): 1-26.
47. Umpierrez G, Korytkowski M. Diabetic emergencies—ketoacidosis, hyperglycaemic hyperosmolar state and hypoglycaemia. *Nature Reviews Endocrinology*. 2016; 12(4): 222-232.
48. Van Keulen K, Knol W, Belitser SV, et al. Diabetes and glucose dysregulation and transition to delirium in ICU patients. *Critical Care Medicine*. 2018; 46(9): 1444-1449.
49. MacLulich AM, Beaglehole A, Hall RJ, et al. Delirium and long-term cognitive impairment. *International Review of Psychiatry*. 2009; 21(1): 30-42.
50. Burry L, Hutton B, Williamson DR., et al. Pharmacological interventions for the treatment of delirium in critically ill adults. *Cochrane Database of Systematic Reviews*. 2019; (9).
51. Li C, Ford ES, Zhao G, et al. Undertreatment of mental health problems in adults with diagnosed diabetes and serious psychological distress: the behavioral risk factor surveillance system, 2007. *Diabetes care*. 2010; 33(5): 1061-1064.
52. Goldberg RW, Kreyenbuhl JA, Medoff DR, et al. Quality of diabetes care among adults with serious mental illness. *Psychiatric Services*. 2007;58:536-543.
53. Nelson LA, Graham MR, Lindsey CC, et al. Medication adherence and glycemic control in patients with psychotic disorders in the Veterans Affairs healthcare system. *Pharmacy Practice*. 2011;9:57-65.