



Cardiovascular Diseases and Sexual Dysfunction

Deniz YILDIZ¹

INTRODUCTION

Cardiovascular diseases (CVD) are one of the most important health problems all over the world and according to the World Health Organization (WHO) 2020 report, they are among the leading causes of mortality and morbidity (1). According to the 2009 report of the Turkish Adult Heart Diseases and Risk Factors (TEKHARF) study conducted in our country covering the years 1990-2008, coronary artery disease (CAD)-related deaths in the 45-74 age range were found to be 7.64 in men and 3.84 in women per thousand people per year, and this rate was determined to be the highest amongst European countries (2).

Sexuality is a composite part of human life and is more than a sexual act. Normal sexual function is a process that progresses smoothly through successive periods of the sexual act, from escalation to relaxation, culminating in satisfaction. Sexuality and its emphasis are important in healthy and sick individuals. In addition, its prominence varies among individuals (3).

The World Health Organization (WHO) defines sexuality as a combination of physical, emotional, intellectual, and social aspects that enrich personality, communication, and love. Sexual health, which the World Health Organization defines as “the whole of somatic, emotional, intellectual and social views enriched by the contribution of personality, communication, and love in sexual life”, is multifaceted. Disease, emotional and cultural factors may disrupt this balance (4).

¹ MD, Bandırma Private Clinic, Department of Psychiatry, denizkutluay@hotmail.com, ORCID iD: 0000-0002-3951-7782

in both men and women. When the sexual anxiety of these patients is considered, the presence of heart disease and accompanying psychological disorders such as anxiety and emotional stress are the strongest determinants. In addition to the psychological factors, the use of certain medications, such as beta blockers and antidepressants, can also affect sexual function. Sexual dysfunction can manifest as a decreased libido, difficulty achieving or maintaining an erection, or difficulty achieving orgasm.

In recent years, there has been increasing awareness of the importance of sexual health in patients with heart disease. The American Heart Association and the European Society of Cardiology have both published guidelines for sexual counseling in patients with cardiovascular disease. These guidelines emphasize the importance of open communication between patients and healthcare professionals, the need for patient education and counseling, and the importance of addressing the psychological and emotional factors that can affect sexual function. Overall, while sexual dysfunction is a common problem among patients with heart disease, it is important to recognize that it can be managed effectively with appropriate treatment and counseling. By addressing sexual health concerns and providing support to patients, healthcare professionals can help improve the quality of life and overall well-being in this population.

REFERENCES

1. World Health Organization. Global status report on noncommunicable diseases 2020. 2020; <https://www.who.int/publications/i/item/9789240005105>
2. Onat A, et al. Age at death in the Turkish adult risk factor study: Temporal trend and regional distribution at 56,700 person-years' follow-up. *Türk Kardiyol Dern Arş*, 37(3), 2009;155-160. doi: 10.5543/TKDA.2009.015
3. Wells D, et al. Caring for sexuality in health and illness. *Churchill Livingstone*. 2000
4. Akın A, et al. Üniversite gençlerinin cinsel ve üreme sağlığı beş üniversite çalışması (özet raporu) [Sexual and reproductive health of university students: Summary report of five universities]. *Ankara: T.C. Sağlık Bakanlığı Ana Çocuk Sağlığı ve Aile Planlaması Genel Müdürlüğü*; 2006.
5. Yıldız H, Pınar R. Miyokard infarktüsülü hastalarda cinsel disfonksiyon [Sexual dysfunction in patients with myocardial infarction]. *Anadolu Kardiyoloji Dergisi*. 2004;4:209-17.
6. Stein R, et al. Sexual activity and heart patients: A contemporary perspective. *Can J Cardiol*. 2016;32(4):410-20. doi: 10.1016/j.cjca.2015.07.009.
7. Tardif GS. Sexual activity after a myocardial infarction. *Arch Phys Med Rehabil*. 1989;70(10):763-6. doi: 10.1016/0003-9993(89)90151-1.
8. Metin A, Kayıgil Ö. Kardiyovasküler problemi olan hastalarda cinsel fonksiyonun sağlanması, Erkek cinsel sağlığı [Providing sexual function in patients with cardiovascular problems, Men's sexual health]. *Androloji Bülteni*. 2004;16(1):10-2. doi: 10.4274/andros.16.10.

9. Stein RA. Cardiovascular response to sexual activity. *Am J Cardiol.* 2000;86(2):27-9. doi: 10.1016/S0002-9149(00)00827-5.
10. Bartlett JR. Physiologic responses during coitus. *J Appl Physiol.* 1956;9(3):469-72. doi: 10.1152/jappl.1956.9.3.469.
11. Kartal Ö, et al. Kalp hastalıklarında cinsel aktivite. *Anadolu Kardiyoloji Dergisi.* 2006;6(3):264-270. <https://www.anakarder.com/Files/AnakarderDergisi/07a70d-c9-81dd-4c56-a1d2-08c7849640f2.pdf>.
12. Papadopoulos C, et al. Sexual activity after coronary bypass surgery. *Chest.* 1986;90(5):681-685. doi: 10.1378/chest.90.5.681.
13. Ko DT, et al. Beta-blocker therapy and symptoms of depression, fatigue, and sexual dysfunction. *JAMA.* 2002;288(3):351-357. doi: 10.1001/jama.288.3.351.
14. Bunzel B, et al. Heart transplantation and sexuality. A study of 62 male patients. *Herz.* 1994;19(5):294-302. <https://link.springer.com/article/10.1007/BF01745577>.
15. Mickley H, Petersen J, Nielsen BL. Subjective consequences of permanent pacemaker therapy in patients under the age of retirement. *Pacing and Clinical Electrophysiology.* 1989;12(3):401-405. doi: 10.1111/j.1540-8159.1989.tb01807.x.
16. Hamilton GA, Seidman RN. A comparison of the recovery period for women and men after myocardial infarction. *Heart & Lung: The Journal of Critical Care.* 1992;22(4):308-315.
17. DeBusk R, et al. Management of sexual dysfunction in patients with cardiovascular disease: Recommendations of the Princeton Consensus Panel. *Am J Cardiol.* 2000;86(2):175-181.
18. Reddy PR, et al. Physical activity as a trigger of sudden cardiac arrest: The Oregon Sudden Unexpected Death Study. *Int J Cardiol.* 2009;131(3):345-349.
19. Muller JE. Sexual activity as a trigger for cardiovascular events: What is the risk? *Am J Cardiol.* 1999;84(5):2-5.
20. Parzeller M, Raschka C, Bratzke H. Sudden cardiovascular death in correlation with sexual activity - results of a medicolegal postmortem study from 1972-1998. *Eur Heart J.* 2001;22(7):610-611.
21. Vicdan N, Özer Z. Miyokard İnfarktüsü ve Cinsel İşlev Bozukluğu. *Türk Kardiyol Dern Kardiyovasküler Hemşirelik Derg.* 2011;2(2):2-6.
22. Dahahreah IJ, Paulus JK. Association of episodic physical and sexual activity with triggering of acute cardiac events: systematic review and meta analysis. *JAMA.* 2011;305(12):1225-1233.
23. Ede H, Tarık S, Zengin K. Erektıl Disfonksiyon ve Kardiyovasküler Değerlendirme. *J Clin Anal Med.* 2014;5(suppl 2):231-233.
24. Kostis JB, Jackson G, Rosen R, Barrett Connor E, Billups K, Burnett AL, et al. Sexual dysfunction and cardiac risk (the Second Princeton Consensus Conference). *Am J Cardiol.* 2005;96(2):313-321.
25. Jannini EA. SM = SM: The Interface of Systems Medicine and Sexual Medicine for Facing Non-Communicable Diseases in a Gender-Dependent Manner. *Sex Med Rev.* 2017;5:349-364. doi: 10.1016/j.sxmr.2017.04.002.
26. Turkish Society of Cardiology. Kalp damar hastalıklarında erektil disfonksiyon ve tedavisi durum raporu [Status report on erectile dysfunction and its treatment in cardiovascular diseases]. <http://www.tkd.org.tr/kilavuz/k05.htm>
27. Jaarsma T. Sexual problems in heart failure patients. *Eur J Cardiovasc Nurs.* 2002 Mar;1:61-7.
28. Drory Y, Kravetz S, Weingarten M. Comparison of sexual activity of women and men after a first acute myocardial infarction. *Am J Cardiol.* 2000 May 15;85(10):1283-7.
29. Papadopoulos C, Zdunek T, Guntner F, Reibnegger G. Myocardial infarction and sexual activity of the female patient. *Arch Intern Med.* 1983;143(8):1528-30.
30. Yıldız H. Miyokard infarktüsünde cinsel fonksiyon bozukluğunun irdelenmesi [Examination of sexual dysfunction in myocardial infarction]. *Hemşirelik Forumu.* 2003;6(4):1-8.

31. Steinke EE, Mosack V, Hill TJ. Change in sexual activity after a cardiac event: The role of medications, comorbidity, and psychosocial factors. *Appl Nurs Res*. 2015 Aug;28(3):244-50. doi: 10.1016/j.apnr.2015.01.002.
32. Forouzannia SK, et al. Sex hormone levels and sexual dysfunction in men after coronary artery bypass graft. *Iran J Reprod Med*. 2012 Oct;10(5):425-8.
33. Assari S. Intercourse avoidance among women with coronary artery disease. *J Sex Med*. 2014 Jul;11(7):1709-16. doi: 10.1111/jsm.12585.
34. Mourad F, et al. Sexual dysfunction before and after coronary artery bypass graft surgery in males. *J Egypt Soc Cardio-Thorac Surg*. 2017 Jan;25(1):45-51. doi: 10.1016/j.jescts.2017.01.007.
35. Eyada M, Atwa M. Sexual function in female patients with unstable angina or non-ST-elevation myocardial infarction. *J Sex Med*. 2007 Sep;4(5):1373-80. doi: 10.1111/j.1743-6109.2007.00570.x.
36. Steptoe A, Jackson SE, Wardle J. Sexual activity and concerns in people with coronary heart disease from a population-based study. *Heart*. 2016 Jul 15;102(14):1095-9. doi: 10.1136/heartjnl-2015-308660.
37. Levine GN, Steinke EE, et al. & American Heart Association Council on Clinical Cardiology; Council on Cardiovascular and Stroke Nursing; Council on Cardiovascular Surgery and Anesthesia. Sexual activity and cardiovascular disease: a scientific statement from the American Heart Association. *Circulation*. 2012 Feb 28;125(8):1058-72. doi: 10.1161/CIR.0b013e3182447787.
38. Steinke EE, et al. Sexual counselling for individuals with cardiovascular disease and their partners: a consensus document from the American Heart Association and the ESC Council on Cardiovascular Nursing and Allied Professions (CCNAP). *Eur Heart J*. 2013 Nov;34(41):3217-35. doi: 10.1093/eurheartj/eh379.
39. Abramssohn EM, et al. "I'm Not Just a Heart, I'm a Whole Person Here": A qualitative study to improve sexual outcomes in women with myocardial infarction. *J Am Heart Assoc*. 2013;2(4):e000199.
40. Özdelikara A, Baba E. Kalp hastaları cinsel aktiviteden uzak durmalı mı? *DÜ Sağlık Bil Enst Derg*. 2017;7(3):165-9.
41. Chen X, Zhang Q, Tan X. Cardiovascular effects of sexual activity. *Indian J Med Res*. 2009;130(6):681-8.
42. Buemann B, Uvnäs-Moberg K. Oxytocin may have a therapeutical potential against cardiovascular disease. Possible pharmaceutical and behavioral approaches. *Med Hypotheses*. 2020;138:1-13.
43. Byrne M, et al. Sexual counselling for sexual problems in patients with cardiovascular disease. *Cochrane Database Syst Rev*. 2016;2(2):1-41.
44. Huang S, Cook SC. It Is Not Taboo: Addressing Sexual Function in Adults with Congenital Heart Disease. *Curr Cardiol Rep*. 2018;20(10):93-101.
45. Steinke EE. Sexual dysfunction in women with cardiovascular disease. What do we know? *J Cardiovasc Nurs*. 2010;25(2):151-8.
46. Türk Kardiyoloji Derneği. Kalp damar hastalıklarında erektil disfonksiyon ve tedavisi durum raporu. [Internet]. 2000. [Erişim tarihi: 11 Nisan 2023]. Mevcut: <http://www.tkd.org.tr/kilavuz/k05.htm>
47. Boztosun B, Olcay A, Değertekin M. Cinsel aktivite ve kardiyovasküler risk. *Anadolu Kardiyol Derg*. 2007;7(4):423-7.
48. Tardif GS. Sexual activity after a myocardial infarction. *Arch Phys Med Rehabil*. 1989;70(10):763-6.
49. Bunzel B, et al. Heart transplantation and sexuality: A study of 62 male patients. *Herz*. 1994;19(5):294-302.
50. Micklely H, Petersen J, Nielsen BL. Subjective consequences of permanent pacemaker therapy in patients under the age of retirement. *Pacing Clin Electrophysiol*. 1989;12(3):401-5.