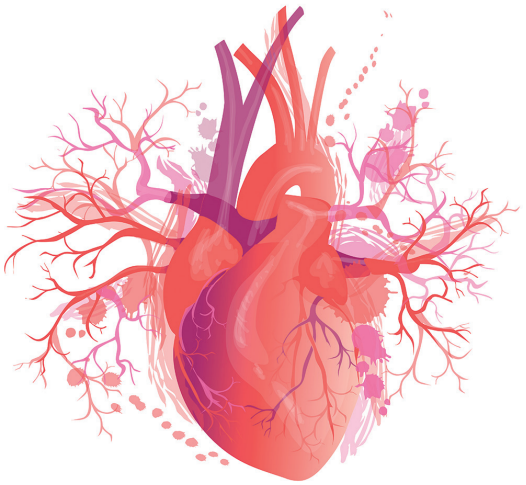

BÖLÜM 37

SOL VENTRİKÜL ANEVRİZMALARI

Ece HASTAŞ USTA[1]

GİRİŞ

Sol ventrikül anevrizmaları (SVA), ilk olarak 1951 yılında anjiyografik kanıtlarla rapor edilmiştir(1). Ventrikülün bir kısmının ince, skarlı fibröz doku ile yer değiştirmesi sonucu oluşan anevrizma, zayıflamış kas duvarının şişmesi ve dışarı çıkması olarak görülür. Bu kısım kasılmada yer almaz ve sistol esnasında dışarı doğru fıtıklaşır. SVA'nın konjenital ve kazanılmış birçok nedeni vardır, en yaygın olarak, genellikle ön duvarı içeren miyokard enfarktüsü sonucu görülür (2). Anevrizma asemptomatik olabilir veya kalp yetmezliği, sürekli ventriküler taşiaritmiler veya arteriyel emboli olarak ortaya çıkabilir ve ölüm veya ciddi morbidite ile sonuçlanabilir.

ETİYOLOJİ

1954 yılında ilk defa Schlichter ve meslektaşları tarafından ventriküler anevrizma sebepleri sınıflandırılmıştır (3).

Konjenital Anevrizma

Konjenital anevrizmalar sporadiktirler, büyük ve ince fibröz doku ile kaplıdırlar. %28'i SV apeksinde yerleşik iken %47'si perivalvuler bölgede yerleşim gösterir (4).

Kazanılmış Anevrizma

İskemik: en sık nedendir. %85-90 anteriyor miyokard infarktüs (Mİ) sonrası görülür.

Travmatik: kaza veya cerrahi yara sonrası

İnfektif: infektif endokardit, romatoid ateş, septik emboli, tüberküloz, poliarteritis nodosa

İdiyopatik: Etiyolojisi bilinmeyen ventriküler anevrizma genellikle Afrikalılarda ve bazen de beyaz popülasyonda görülür. Anuler subvalvüler anevrizma şeklinde genellikle mitral halkaya yakın ortaya çıkar, mitral halkayı uzatır ve papiller kasın, korda tendinaların ve mitral kapağın uçlarının işlevini engeller.

Diğer nedenler: sistemik hipertansiyon, steroid ve nonsteroid kullanımı, Chagas hastalığı, sarkoidoz

SV anevrizmalarının en sık sebebi iskemidir, akut transmural miyokard infarktüs (STEMI) sonrası %30-35 oranında görülebilir (5). 2017 yılında yapılan bir çalışmada 15.000 kişinin yer aldığı popülasyonda SV anevrizması insidansı %7,6 saptanmış. SV anevrizması, ön duvar miyo-

[1] Uzm. Dr., Kaçkar Devlet Hastanesi, Kardiyoloji Kliniği, ecehastas35@hotmail.com

KAYNAKÇA

1. Sattar Y, Alraies MC. Ventricular aneurysm. StatPearls [Internet]. 2021.
2. Shapira OM, An L. Left ventricular aneurysm and pseudoaneurysm following acute myocardial infarction. UpToDate Post TW (ed): UpToDate, Waltham, MA. 2021.
3. Schlichter J, Hellerstein H, Katz L. Aneurysm of the heart: a correlative study of one hundred and two proved cases. Medicine. 1954;33(1):43.
4. Ohlow M-A. Congenital left ventricular aneurysms and diverticula: an entity in search of an identity. Journal of geriatric cardiology: JGC. 2017;14(12):750.
5. Albuquerque KS, Indiani JMC, Martin MF, Nacif MS. Asymptomatic apical aneurysm of the left ventricle with intracavitary thrombus: a diagnosis missed by echocardiography. Radiologia brasileira. 2018;51(4):275-6.
6. Prifti E, Bonacchi M, Baboci A, Giunti G, Veshti A, Demiraj A, et al. Surgical treatment of post-infarction left ventricular pseudoaneurysm: case series highlighting various surgical strategies. Annals of Medicine and Surgery. 2017;16:44-51.
7. Edmunds Jr LH. Cardiac surgery in the adult. Cardiac surgery in the adult1997. p. 1542-.
8. Ibánez B, James S, Agewall S, Antunes MJ, Bucciarelli-Ducci C, Bueno H, et al. 2017 ESC Guidelines for the management of acute myocardial infarction in patients presenting with ST-segment elevation. Revista espanola de cardiologia (English ed). 2017;70(12):1082.
9. O'gara PT, Kushner FG, Ascheim DD, Casey Jr DE, Chung MK, De Lemos JA, et al. 2013 ACCF/AHA guideline for the management of ST-elevation myocardial infarction: executive summary: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. Circulation. 2013;127(4):529-55.
10. Dubnow MH, Burchell HB, Titus JL. Postinfarction ventricular aneurysm: a clinicomorphologic and electrocardiographic study of 80 cases. American heart journal. 1965;70(6):753-60.
11. Ruzza A, Czer LS, Arabia F, Vespignani R, Esmailian F, Cheng W, et al. Left ventricular reconstruction for postinfarction left ventricular aneurysm: review of surgical techniques. Texas Heart Institute Journal. 2017;44(5):326.
12. Mourdjinis A, Olsen E, Raphael M, Mounsey J. Clinical diagnosis and prognosis of ventricular aneurysm. British heart journal. 1968;30(4):497.
13. Faxon DP, Ryan TJ, Davis KB, McCabe CH, Myers W, Lesperance J, et al. Prognostic significance of angiographically documented left ventricular aneurysm from the Coronary Artery Surgery Study (CASS). The American journal of cardiology. 1982;50(1):157-64.
14. Smith SW. T/QRS ratio best distinguishes ventricular aneurysm from anterior myocardial infarction. The American journal of emergency medicine. 2005;23(3):279-87.
15. Gatewood Jr RP, Nanda NC. Differentiation of left ventricular pseudoaneurysm from true aneurysm with two dimensional echocardiography. The American journal of cardiology. 1980;46(5):869-78.
16. Frances C, Romero A, Grady D. Left ventricular pseudoaneurysm. Journal of the American College of Cardiology. 1998;32(3):557-61.
17. Konen E, Merchant N, Gutierrez C, Provost Y, Mickleborough L, Paul NS, et al. True versus false left ventricular aneurysm: differentiation with MR imaging—initial experience. Radiology. 2005;236(1):65-75.
18. Heatlie G, Mohiaddin R. Left ventricular aneurysm: comprehensive assessment of morphology, structure and thrombus using cardiovascular magnetic resonance. Clinical radiology. 2005;60(6):687-92.
19. Sharma A, Kumar S. Overview of left ventricular outpouchings on cardiac magnetic resonance imaging. Cardiovascular diagnosis and therapy. 2015;5(6):464.
20. Lundblad R, Abdelnoor M, Svennevig JL. Repair of left ventricular aneurysm: surgical risk and long-term survival. The Annals of thoracic surgery. 2003;76(3):719-25.
21. Ba'Albaki H, Clements Jr S. Left ventricular aneurysm: a review. Clinical cardiology. 1989;12(1):5-13.
22. Robinson AA, Jain A, Gentry M, McNamara RL. Left ventricular thrombi after STEMI in the primary PCI era: a systematic review and meta-analysis. International journal of cardiology. 2016;221:554-9.
23. Vaitkus PT, Barnathan ES. Embolic potential, prevention and management of mural thrombus complicating anterior myocardial infarction: a meta-analysis. Journal of the American College of Cardiology. 1993;22(4):1004-9.

24. Srichai MB, Junor C, Rodriguez LL, Stillman AE, Grimm RA, Lieber ML, et al. Clinical, imaging, and pathological characteristics of left ventricular thrombus: a comparison of contrast-enhanced magnetic resonance imaging, transthoracic echocardiography, and transesophageal echocardiography with surgical or pathological validation. American heart journal. 2006;152(1):75-84.
25. Weinsaft JW, Kim J, Medicherla CB, Ma CL, Codella NC, Kukar N, et al. Echocardiographic algorithm for post–myocardial infarction LV thrombus: a gatekeeper for thrombus evaluation by delayed enhancement CMR. JACC: Cardiovascular Imaging. 2016;9(5):505-15.
26. Lip G, Manning W, Weissman N. Left ventricular thrombus after acute myocardial infarction. UpToDate, Waltham, MA(Accessed on March 10, 2016). 2019.
27. O'gara PT, Kushner FG, Ascheim DD, Casey DE, Chung MK, De Lemos JA, et al. 2013 ACCF/AHA guideline for the management of ST-elevation myocardial infarction: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. Journal of the American college of cardiology. 2013;61(4):e78-e140.
28. Ibanez B, James S, Agewall S, Antunes MJ, Bucciarelli-Ducci C, Bueno H, et al. 2017 ESC Guidelines for the management of acute myocardial infarction in patients presenting with ST-segment elevation: The Task Force for the management of acute myocardial infarction in patients presenting with ST-segment elevation of the European Society of Cardiology (ESC). European heart journal. 2018;39(2):119-77.
29. Figueras J, Alcalde O, Barrabés JA, Serra V, Alguersuari J, Cortadellas J, et al. Changes in hospital mortality rates in 425 patients with acute ST-elevation myocardial infarction and cardiac rupture over a 30-year period. Circulation. 2008;118(25):2783-9.
30. Dor V, editor Left ventricular aneurysms: the endoventricular circular patch plasty. Seminars in thoracic and cardiovascular surgery; 1997.
31. Sui Y, Teng S, Qian J, Zhao Z, Zhang Q, Wu Y. Treatment outcomes and therapeutic evaluations of patients with left ventricular aneurysm. Journal of international medical research. 2019;47(1):244-51.
32. Shapira OM, Aldea GS, Carr Jr TG, Shemin RJ. Thoracotomy for repair of left ventricular aneurysm in a patient with patent coronary bypass grafts. The Annals of thoracic surgery. 1994;58(5):1536-8.
33. Sinha P, Varma P, Korach A, Shapira OM. Transmitral endocavitary repair of inferior left ventricular pseudoaneurysm: A simplified approach in patients requiring concomitant mitral valve surgery. The Journal of thoracic and cardiovascular surgery. 2008;135(6):1382-3.
34. Cherniavsky A, Karaskov A, Marchenko A, Mikova N. Preoperative modeling of an optimal left ventricle volume for surgical treatment of ventricular aneurysms. European journal of cardio-thoracic surgery. 2001;20(4):777-82.
35. Baciewicz PA, Weintraub WS, Jones EL, Craver JM, Cohen CL, Tao X, et al. Late follow-up after repair of left ventricular aneurysm and (usually) associated coronary bypass grafting. The American journal of cardiology. 1991;68(2):193-200.
36. Dor V, Sabatier M, Montigho F, Rossi P, Toso A, Di Donato M. Results of nonguided subtotal endocardiectomy associated with left ventricular reconstruction in patients with ischemic ventricular arrhythmias. The Journal of thoracic and cardiovascular surgery. 1994;107(5):1301-8.