

18 Linksherzunterstützungssysteme

- [1] Ponikowski P, Voors AA, Anker SD et al. 2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure. *Eur Heart J* 37:2129–2200, 2016
- [2] Byrne RA, Rossello X, Coughlan JJ et al. ESC Scientific Document Group. 2023 ESC Guidelines for the management of acute coronary syndromes. *Eur Heart J* 44:3720–3826, 2023
- [3] Neumann FJ, Sousa UM, Ahlsson A et al. 2018 ESC/EACTS Guidelines on myocardial revascularization. *Eur Heart J* 40:87–165, 2019
- [4] Amin AP, Spertus JA, Curtis JP et al. The evolving landscape of Impella use in the United States among patients undergoing percutaneous coronary intervention with mechanical circulatory support. *Circulation* 141:273–284, 2020
- [5] O'Neill WW, Kleiman NS, Moses J et al. Prospective randomized clinical trial of hemodynamic support with Impella 2.5 versus intra-aortic balloon pump in patients undergoing high-risk percutaneous coronary intervention: the PROTECT II Study. *Circulation* 126:1717–1727, 2012
- [6] Perera D, Stables R, Thomas M et al., for the BCIS-1 Investigators. Elective intra-aortic balloon counterpulsation during high-risk percutaneous coronary intervention: a randomized controlled trial. *JAMA* 304:867–874, 2010
- [7] Michels G, Wengenmayer T, Hagl C et al. Recommendations for extracorporeal cardiopulmonary resuscitation (eCPR): consensus statement of DGIIN, DGK, DGTHG, DGfK, DGNI, DGAI, DIVI and GRC. *Clin Res Cardiol* 108:455–464, 2019
- [8] Kantrowitz A, Tjonneland S, Freed PS et al. Initial clinical experience with intra-aortic balloon pumping in cardiogenic shock. *JAMA* 203:113–118, 1968
- [9] Scheidt S, Wilner G, Mueller H et al. Intra-aortic balloon counterpulsation in cardiogenic shock. Report of a co-operative clinical trial. *N Engl J Med* 288:979–984, 1973
- [10] Prondzinsky R, Unverzagt S, Russ M et al. Hemodynamic effects of intra-aortic balloon counterpulsation in patients with acute myocardial infarction complicated by cardiogenic shock: the prospective, randomized IABP shock trial. *Shock* 37:378–384, 2012
- [11] Sandhu A, McCoy LA, Negi SI et al. Utilization of mechanical circulatory support in patients undergoing percutaneous coronary intervention: insights from the NCDR. *Circulation* 132:1243–1251, 2015
- [12] Prondzinsky R, Lemm H, Swyter M et al. Intra-aortic balloon counterpulsation in patients with acute myocardial infarction complicated by cardiogenic shock – the prospective, randomized IABP SHOCK Trial for attenuation of multi-organ dysfunction syndrome. *Crit Care Med* 38:152–160, 2010
- [13] Thiele H, Zeymer U, Neumann F-J et al. Intraaortic balloon support for myocardial infarction with cardiogenic shock. *N Engl J Med* 367:1287–1296, 2012
- [14] Thiele H, Zeymer U, Neumann F-J et al. Intraaortic balloon counterpulsation in acute myocardial infarction complicated by cardiogenic shock. Final 12-month results of the randomized, open-label trial. *Lancet* 382:1638–1645, 2013
- [15] Thiele H, Zeymer U, Thelemann N et al. Intraaortic balloon pump in cardiogenic shock complicating acute myocardial infarction. Long-term 6-year outcome of the randomized IABP-SHOCK II Trial. *Circulation* 139:395–403, 2019
- [16] Sjaauw KD, Engstrom AE, Vis MM et al. A systematic review and meta-analysis of intra-aortic balloon pump therapy in ST-elevation myocardial infarction: should we change the guidelines? *Eur Heart J* 30:459–468, 2009

- [17] Patel MR, Smalling RW, Thiele H et al. Intra-aortic balloon counterpulsation and infarct size in patients with acute anterior myocardial infarction without shock: the CRISP AMI Randomized Trial. *JAMA* 306:1329–1337, 2011
- [18] Thiele H, Lauer B, Hambrecht R et al. Reversal of cardiogenic shock by percutaneous left-atrial-to-femoral arterial bypass assistance. *Circulation* 104:2917–2922, 2001
- [19] Thiele H, Sick P, Boudriot E et al. Randomized comparison of intraaortic balloon support versus a percutaneous left ventricular assist device in patients with revascularized acute myocardial infarction complicated by cardiogenic shock. *Eur Heart J* 26:1276–1283, 2005
- [20] Burkhoff D, Cohen H, Brunckhorst C et al. A randomized multicenter clinical study to evaluate the safety and efficacy of the TandemHeart percutaneous ventricular assist device versus conventional therapy with intraaortic balloon pumping for treatment of cardiogenic shock. *Am Heart J* 152:469.e1–469.e8, 2006
- [21] Aragon J, Lee MS, Kar S et al. Percutaneous left ventricular assist device: „TandemHeart“ for high-risk coronary intervention. *Catheter Cardiovasc Interv* 65:346–352, 2005
- [22] Vranckx P, Foley DP, Feijter PJ et al. Clinical introduction of the TandemHeart, a percutaneous left ventricular assist device, for circulatory support during high-risk percutaneous coronary intervention. *Int J Cardiovasc Intervent* 5:35–39, 2003
- [23] Seyfarth M, Sibbing D, Bauer I et al. A randomized clinical trial to evaluate the safety and efficacy of a percutaneous left ventricular assist device versus intra-aortic balloon pumping for treatment of cardiogenic shock caused by myocardial infarction. *J Am Coll Cardiol* 52:1584–1588, 2008
- [24] Ouweneel DM, Eriksen E, Sjauw KD et al. Impella CP versus intra-aortic balloon pump support in acute myocardial infarction complicated by cardiogenic shock. The IMPRESS in Severe Shock trial. *J Am Coll Card* 69:278–287, 2017
- [25] Bochaton T, Huot L, Elbaz M et al. Mechanical circulatory support with the Impella® LP5.0 pump and an intra-aortic balloon pump for cardiogenic shock in acute myocardial infarction: the IMPELLA-STIC randomized study. *Arch Cardiovasc Dis* 113:237–243, 2020
- [26] Baumann S, Werner N, Ibrahim K et al. Indication and short-term clinical outcomes of high-risk percutaneous coronary intervention with microaxial Impella® pump: results from the German Impella® registry. *Clin Res Cardiol* 107:653–657, 2018
- [27] Dudek D, Ebner A, Sobczyński R et al. Efficacy and safety of the HeartMate percutaneous heart pump during high-risk percutaneous coronary intervention (from the SHIELD I Trial). *Am J Cardiol* 121:1524–1529, 2018
- [28] van Mieghem NM, Daemen J, Lenzen MJ et al. The PulseCath iVAC 2L left ventricular assist device: conversion to a percutaneous transfemoral approach. *EuroIntervention* 11:835–839, 2015
- [29] den Uil CA, Daemen J, Lenzen MJ et al. Pulsatile iVAC 2L circulatory support in high-risk percutaneous coronary intervention. *EuroIntervention* 12:1689–1696, 2017
- [30] Samol A, Schmidt S, Zeyse M et al. High-risk PCI under support of a pulsatile left ventricular assist device – first German experience with the iVAC2L system. *Int J Cardiol* 297:30–35, 2019
- [31] Russo JJ, Aleksova N, Pitcher I et al. Left ventricular unloading during extracorporeal membrane oxygenation in patients with cardiogenic shock. *J Am Coll Card* 73:654–662, 2019
- [32] Karagiannidis C, Brodie D, Strassmann S et al. Extracorporeal membrane oxygenation: evolving epidemiology and mortality. *Intensive Care Med* 42:889–896, 2016
- [33] Ouweneel DM, Schotborgh JV, Limpens J et al. Extracorporeal life support during cardiac arrest and cardiogenic shock: a systematic review and meta-analysis. *Intensive Care Med* 42:1922–1934, 2016
- [34] de Waha S, Graf T, Desch S et al. Outcome of elderly undergoing extracorporeal life support in refractory cardiogenic shock. *Clin Res Cardiol* 106:379–385, 2017
- [35] Brunner S, Guenther SPW, Lackermair K et al. Extracorporeal life support in cardiogenic shock complicating acute myocardial infarction. *J Am Coll Card* 73:2355–2357, 2019