

Anticoagulation in the setting of bioprosthetic valve endocarditis

 Drazen Zekanovic^{1,2},
 Dino Mikulic¹,
 Mira Stipcevic^{1,2,3*},
 Marin Bistirlic¹,
 Jogen Patrk^{1,2},
 Zoran Bakotic^{1,3},
 Karla Savic¹,
 Karla Grgic¹,
 Stipe Kosor¹,
 Nikola Verunica¹

¹Zadar General Hospital, Zadar, Croatia

²University of Zadar, Department of Health Studies, Zadar, Croatia

³Faculty of Dental Medicine and Health, University of Osijek, Osijek, Croatia

KEYWORDS: infective endocarditis, anticoagulation, bioprosthetic valve.

CITATION: *Cardiol Croat.* 2023;18(9-10):262. | <https://doi.org/10.15836/ccar2023.262>

***ADDRESS FOR CORRESPONDENCE:** Mira Stipčević, Opća bolnica Zadar, Ul. Bože Peričića 5, HR-23000, Zadar, Croatia. /Phone: +385-98-593-416 / E-mail: mira.stipcevic@gmail.com

ORCID: Drazen Zekanovic, <https://orcid.org/0000-0002-8147-6574> • Dino Mikulic, <https://orcid.org/0000-0002-3785-1584> • Mira Stipcevic, <https://orcid.org/0000-0003-4351-1102> • Marin Bistirlic, <https://orcid.org/0000-0002-9213-4174> • Jogen Patrk, <https://orcid.org/0000-0002-8165-692X> • Zoran Bakotic, <https://orcid.org/0000-0002-7095-0111> • Karla Savic, <https://orcid.org/0000-0002-1339-8922> • Karla Grgic, <https://orcid.org/0000-0003-3512-9472> • Stipe Kosor, <https://orcid.org/0000-0002-2813-9026> • Nikola Verunica, <https://orcid.org/0000-0003-2480-9106>

Introduction: Infective endocarditis remains life-threatening disease with in-hospital mortality of 15-30%. This entity represents complex interaction between pathogen, host immune system and coagulation cascade.¹⁻³ However, routine anticoagulation therapy in this setting is not recommended by the official guidelines.

Case report: Patient with bioprosthetic aortic valve was admitted for abdominal pain and elevated inflammation markers. Artificial valve vegetations were confirmed by transesophageal echocardiography and CT abdominal scan revealed spleen and right kidney infarctions. *Streptococcus viridans* was isolated from blood cultures and was sensitive to empirical gentamycin and vancomycin. Repeated transesophageal echocardiogram (TEE) showed no residual vegetations and patient was dismissed on the 26th day with oral amoxicillin. 6 days later patient came again complaining of similar abdominal pain but with normal blood tests and no fever. Repeated CT scan revealed reinfarction of spleen and no residual changes on kidneys. TEE was preformed once again this time showing 6x6 mm floating mobile mass of the same valve highly suspicious of thrombus. Patient was dismissed after 4 days but this time with warfarin.

Conclusion: This case reminds us of need to individualize therapy for each patient. There is perhaps underrecognized need for more liberal use of anticoagulation therapy especially in high risk patients early in the course of the disease.

RECEIVED:
July 31, 2023

ACCEPTED:
August 13, 2023



LITERATURE

- Liesenborghs L, Meyers S, Vanassche T, Verhamme P. Coagulation: At the heart of infective endocarditis. *J Thromb Haemost.* 2020 May;18(5):995-1008. <https://doi.org/10.1111/jth.14736>
- Habib G, Lancellotti P, Antunes MJ, Bongiorno MG, Casalta JP, Del Zotti F, et al; ESC Scientific Document Group. 2015 ESC Guidelines for the management of infective endocarditis: The Task Force for the Management of Infective Endocarditis of the European Society of Cardiology (ESC). Endorsed by: European Association for Cardio-Thoracic Surgery (EACTS), the European Association of Nuclear Medicine (EANM). *Eur Heart J.* 2015 Nov 21;36(44):3075-3128. <https://doi.org/10.1093/eurheartj/ehv319>
- Baddour LM, Wilson WR, Bayer AS, Fowler VG Jr, Tleyjeh IM, Rybak MJ, et al; American Heart Association Committee on Rheumatic Fever, Endocarditis, and Kawasaki Disease of the Council on Cardiovascular Disease in the Young, Council on Clinical Cardiology, Council on Cardiovascular Surgery and Anesthesia, and Stroke Council. Infective Endocarditis in Adults: Diagnosis, Antimicrobial Therapy, and Management of Complications: A Scientific Statement for Healthcare Professionals From the American Heart Association. *Circulation.* 2015 Oct 13;132(15):1435-86. <https://doi.org/10.1161/CIR.0000000000000296>