Arrythmogenic cardiomyopathy: a case report

Paula Keblar*,
Ivica Benko,
Verica Šeb,
Ružica Lovrić,
Patricia Bručić Ričko,
Anita Botić,
Mateja Šolić,
Nikolina Glogovšek

Dubrava University Hospital, Zagreb, Croatia

KEYWORDS: arrhythmogenic right ventricular dysplasia, heart transplantation, ventricular tachycardia, implantable cardioverter defibrillator.

CITATION: Cardiol Croat. 2024;19(11-12):613. | https://doi.org/10.15836/ccar2024.613

***ADDRESS FOR CORRESPONDENCE**: Paula Keblar, Klinička bolnica Dubrava, Avenija Gojka Šuška 6, HR-10000 Zagreb, Croatia. / Phone: +385-01-2902-542 / E-mail: vestoria.t@gmail.com
ORCID: Paula Keblar, https://orcid.org/0009-0000-9694-4118 • Ivica Benko, https://orcid.org/0000-0002-1878-0880
Verica Šeb, https://orcid.org/0009-0002-6295-5921 • Ružica Lovrić, https://orcid.org/0000-0002-8991-5025
Patricia Bručić Ričko, https://orcid.org/0009-0009-0145-0664 • Anita Botić, https://orcid.org/0009-0005-7493-6375
Mateja Šolić, https://orcid.org/0000-0001-8200-060X • Nikolina Glogovšek, https://orcid.org/0000-0001-7769-5179

Introduction: Arrhythmogenic right ventricular dysplasia/cardiomyopathy (ARVD/C) is a rare hereditary condition characterized by structural abnormalities of the right ventricle, often linked to ventricular arrhythmias. Family history analysis, diagnostic procedures, and appropriate treatment are critical to prevent sudden death, with heart transplantation as the only definitive cure.[1,2]

Case report: This case presents late-onset ARVD/C in a 38-year-old woman. Diagnosis was confirmed through ECG, MSCT, cardiac MRI, genetic mutation analysis, and frequent ventricular tachycardia from the right ventricle, leading to implantable cardioverter defibrillator implantation as secondary prevention. Despite amiodarone treatment in August 2023, her condition worsened, with increasing heart failure symptoms and NT-proBNP levels, necessitating heart transplantation. The patient underwent heart transplantation in September 2024, followed by a complicated postoperative course. She initially developed metabolic acidosis and rising lactate levels, requiring inotropic and vasopressor support, along with broad-spectrum antibiotics (vancomycin and meropenem). By the third postoperative day, continuous veno-venous hemodiafiltration was needed due to oliguria. Inflammatory markers decreased, and her condition gradually stabilized. Microbiological testing showed urinary colonization with *Klebsiella oxytoca* and *Morganella*, both sensitive to ceftriaxone, which was administered. After gradual improvement, including weaning from mechanical ventilation and vasopressor support, she was transferred to the cardiac surgery unit. A myocardial biopsy confirmed good graft function. She was discharged hemodynamically stable, continuing immunosuppressive therapy with regular follow-up.

Conclusion: This case highlights the complexity of managing patients with advanced ARVD/C, demonstrating the need for continuous nursing education to ensure comprehensive post-transplant care and optimal patient outcomes.

RECEIVED:
October 12, 2024
ACCEPTED:
October 31, 2024

LITERATURE

1. Corrado D, van Tintelen PJ, McKenna WJ, Hauer RNW, Anastastakis A, Asimaki A, et al; International Experts. Arrhythmogenic right ventricular cardiomyopathy: evaluation of the current diagnostic criteria and differential diagnosis. Eur Heart J. 2020 Apr 7;41(14):1414-1429. https://doi.org/10.1093/eurheartj/ehz669
2. Towbin JA, McKenna WJ, Abrams DJ, Ackerman MJ, Calkins H, Darrieux FCC, et al. 2019 HRS expert consensus statement on evaluation, risk stratification, and management of arrhythmogenic cardiomyopathy. Heart Rhythm. 2019 Nov;16(11):e301-e372. https://doi.org/10.1016/j.hrthm.2019.05.007