

Successful cardiac sympathetic denervation for Andersen–Tawil syndrome

Michalina Krych ^{1*}, Kamila Janisz ¹, Jarosław Kuriata², Mariusz Kuśmierczyk ³, Piotr Hoffman ¹, and Elżbieta Katarzyna Biernacka ¹

¹Department of Congenital Heart Diseases, National Institute of Cardiology, st. Alpejska 42, 04-628 Warsaw, Poland; ²Department of Cardiac Surgery and Transplantation, National Institute of Cardiology, Warsaw, Poland; and ³Department of Cardiac Surgery, Medical University of Warsaw, st. Banacha 1a, 02-097 Warsaw, Poland

*Corresponding author. Tel: +48 22 343 44 00, Fax: +48 22 343 45 21, E-mail address: mkrych@ikard.pl

Andersen–Tawil syndrome (ATS) is a channelopathy characterized by the triad of symptoms, amongst other ventricular arrhythmias.

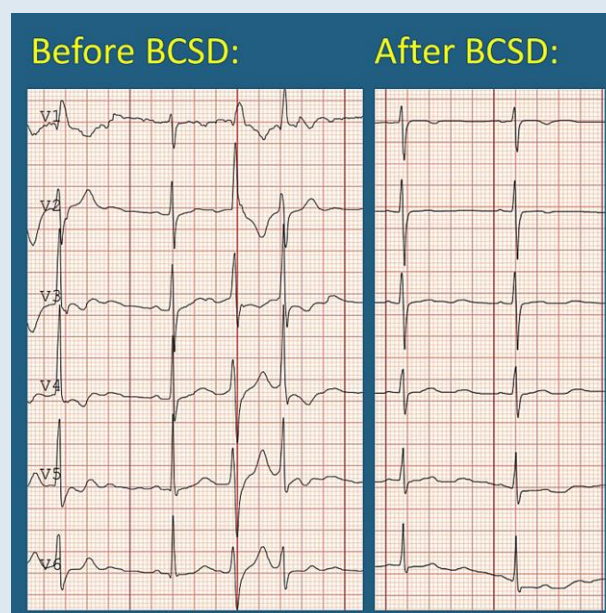
We report a 27-year-old woman with ATS who underwent effective bilateral cardiac sympathetic denervation (BCSD). She presented symptomatic multiple ventricular arrhythmia intensifying during exercise stress test, falls due to transient muscle weakness of the legs, and one episode of loss of consciousness. Trials of pharmacological treatment with propafenone or flecainide were unsuccessful. Due to the lack of any other treatment option, the patient was qualified for BCSD.

Both pleural cavities were accessed from bilateral mini-lateral thoracotomy. A bilateral sympathetic nerve chains were removed from Th2 to the level of Th5. The procedure was complicated by chronic pain of the chest requiring pharmacological treatment with gabapentin, which the patient could discontinue after 1 year.

After 12-month follow-up, the patient reported significant improvement in quality of life. The 24-hour Holter monitoring showed reduction of ventricular arrhythmia from 30 596 premature ventricular contractions with several non-sustained ventricular tachycardia episodes to 2716 PVCs, including 159 doublets and 1 triplets. Electrocardiogram before and after procedure was shown in *Panel*.

The case report shows that BCSD could be considered for patients with no-option ATS.

The full-length version of this report can be viewed at: <https://www.escardio.org/Education/E-Learning/Clinical-cases/Electrophysiology>.



© The Author(s) 2022. Published by Oxford University Press on behalf of the European Society of Cardiology.

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial License (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited. For commercial re-use, please contact journals.permissions@oup.com