

Letter to the Editor in response to “Role of Subcutaneous Leadless Implantable Cardioverter Defibrillator in Young Patients”

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December 8, 2018

To the Editor:

We enjoyed reading the article by Gwozdz et al. in the recent issue of the *Methodist DeBakey Cardiovascular Journal*.¹ The authors have described therapeutic endovascular modalities of the upper and lower extremity central venous thrombosis in contemporary practice in the published special edition on venous interventions.

In the present article, the authors state that a 34-year-old woman received a permanent pacemaker for Brugada syndrome (BrS).¹ The pacemaker should be correctly identified as a single-chamber implantable converter defibrillator (ICD) as it is the correct form of intervention for patients with BrS to prevent sudden cardiac death. BrS is a genetic channelopathy most commonly involving the *SCN5A* gene, which encodes the cardiac sodium channel function, and leads to increased incidence of ventricular arrhythmias. The illustrated venogram also appears to demonstrate a single lead, which appears to represent an ICD lead. Also relevant to the case, the rate of venous thrombosis and stenosis is usually directly proportional to the increasing diameter and the increasing number of leads. An ICD lead usually has a larger diameter than a pacemaker lead, thus being more prone to stenosis.

The current practice guidelines recommend the placement of an ICD for primary or secondary prevention of sudden cardiac death in symptomatic BrS patients.^{2,3} Leadless or subcutaneous ICDs have recently begun gaining favor, especially in younger patients (such as those with channelopathy), to prevent the associated complications of the transvenous cardiac device leads.^{4,5} The extrathoracic placement and elimination of transvenous endocardial leads makes these miniaturized devices particularly attractive options in the younger population since these patients often require multiple device exchanges in their lifetime, which increases the risks of other complications such as device infection.^{4,5}

Keywords:

leadless, subcutaneous, implantable cardioverter defibrillator, venous stenosis, venous thrombosis, young patients

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RESPONSE FROM THE AUTHOR:

We are grateful to the authors for identifying the error in our original manuscript and for elaborating on the role and function of pacemakers in Brugada Syndrome.

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