Reviewer's report

Title: Risk of subsequent ventricular arrhythmia is higher in primary prevention patients with implantable cardioverter defibrillator than in secondary prevention patients

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Reviewer: Takahiro Okumura

Reviewer's report:

In the manuscript entitled "Risk of subsequent ventricular arrhythmia is higher in primary prevention patients with implantable cardioverter defibrillator than in secondary prevention patients", the authors examined the prognostic difference between the group with ICD attached for primary prevention (PP) and the group attached for secondary prevention (SP). They reported that the risk of ventricular arrhythmia recurrence in the PP group was higher than that in the SP group. Although the attempt in this study is clinically important, the methodology involves critical concerns. The author's conclusion is influenced by a bias that cannot be ignored and it may mislead the reader's clinical decisions.

#1 As pointed out by other reviewers, this study lacks data on medical treatments such as antiarrhythmic drugs and cardioprotective agents after ICD implantation. The authors answered that they have no data on medical treatment. However, these items are essential data. Inappropriate study design cannot lead to conclusions.

#2 The authors described as "each patient signed written consent form" in Ethics approval and consent to participate. However, as this study design is a retrospective one and some subjects experienced death, the researchers cannot theoretically obtain written informed consent from all subjects. I think this statement is inconsistent and unreliable.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
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No

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If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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