Reviewer’s report

Title: Incidence of Atrial Fibrillation in Patients with either Heart Failure or Acute Myocardial Infarction and Left Ventricular Dysfunction: A Cohort Study

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Reviewer: Dimpi Patel

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Incidence of Atrial Fibrillation in Patients with either Heart Failure or Acute Myocardial Infarction and Left Ventricular Dysfunction: A Cohort Study:

General: Schmiegelow et al. question whether the use of dofetilide would reduce the incidence of new-onset AF in patients with a combination of left ventricular dysfunction and heart failure or left ventricular dysfunction and recent myocardial infarction when compared to treatment with placebo. The paper is interesting. Nice job.

Background:

Minor changes: The thesis is a little awkwardly worded…please see the suggestion below

We retrospectively analyzed data from the DIAMOND studies to investigate the benefit of treatment with dofetilide versus placebo in patients with left ventricular dysfunction with either heart failure or recent myocardial infarction. Additionally, we assessed risk factors that may contribute to new-onset AF in these two cohorts in order to select for a population that would benefit from treatment with prophylactic anticoagulation or antiarrhythmic agents.

Methods:

Minor changes: See below.

We retrospectively analyzed data that was collected by DIAMOND Investigators from (X-X dates of the studies).

Statistics:

Nice Job

Results:

Minor:

Did you have left atrial size?

It is interesting that in your baseline characteristic factors such as male gender,
DMII, HTN, BMI, age are not significant for new-onset AF. However after adjusting for the variables, I see that age and gender are significant. Do you have a possible idea as to why HTN or DMII is not significant in these populations? It seems odd especially the HTN. It is not surprising to find that heart failure was the strongest predictor!

Discussion:

Minor:

On page 8 “who cannot die” I would reword this.
On page 8: In our MI group….patients who experience"d"
On page 8: Thus, this study "statistically lacked power" to
On page 10: change paroxystic to "paroxysmal"
On page 10: The study was not designed to “evaluate”
On page 11: In the conclusion it is stated as a 41% reduction…. in the abstract it is stated as a 42% reduction.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests