

Response to reviewers, manuscript NO: 33556

Reviewer 1:

We thank the reviewer for his/her comments to improve our manuscript

The paper by dr. Muser et al. is an excellent review paper on the management of the electrical storm.

I would have only a few considerations for manuscript improvement.

1. In the introduction, the authors should make more clear that this review is focused only on the electrical storm in patients with structural heart disease, since the treatment of an electrical storm in other conditions (Brugada syndrome, catecholaminergic polymorphic ventricular tachycardia) can be very different. Alternatively, it would be interesting a short paragraph on the possible treatment options also in these other cases.

We have modified the introduction according to the reviewer's comment:

Page 4: "Although ES mainly occurs in patients with structural heart disease and low left ventricular ejection fraction (LVEF), it may affect also patients with inherited arrhythmic syndromes and structurally normal heart (i.e. Brugada syndrome and catecholaminergic polymorphic VT) representing a life-threatening condition requiring urgent medical care. Several strategies have been proposed to manage ES with most of the data coming from small retrospective series, lacking large randomized-controlled trials. There are several substantial differences in the approach and treatment of ES in the setting of structural heart disease compared to primitive arrhythmic syndromes. In this review, we will focus on the management of ES in the setting of structural heart disease by summarizing the current therapeutic strategies in a stepwise approach based on available evidence"

2.As pointed out in the second paragraph, reversible causes of electrical storm are relatively rare.

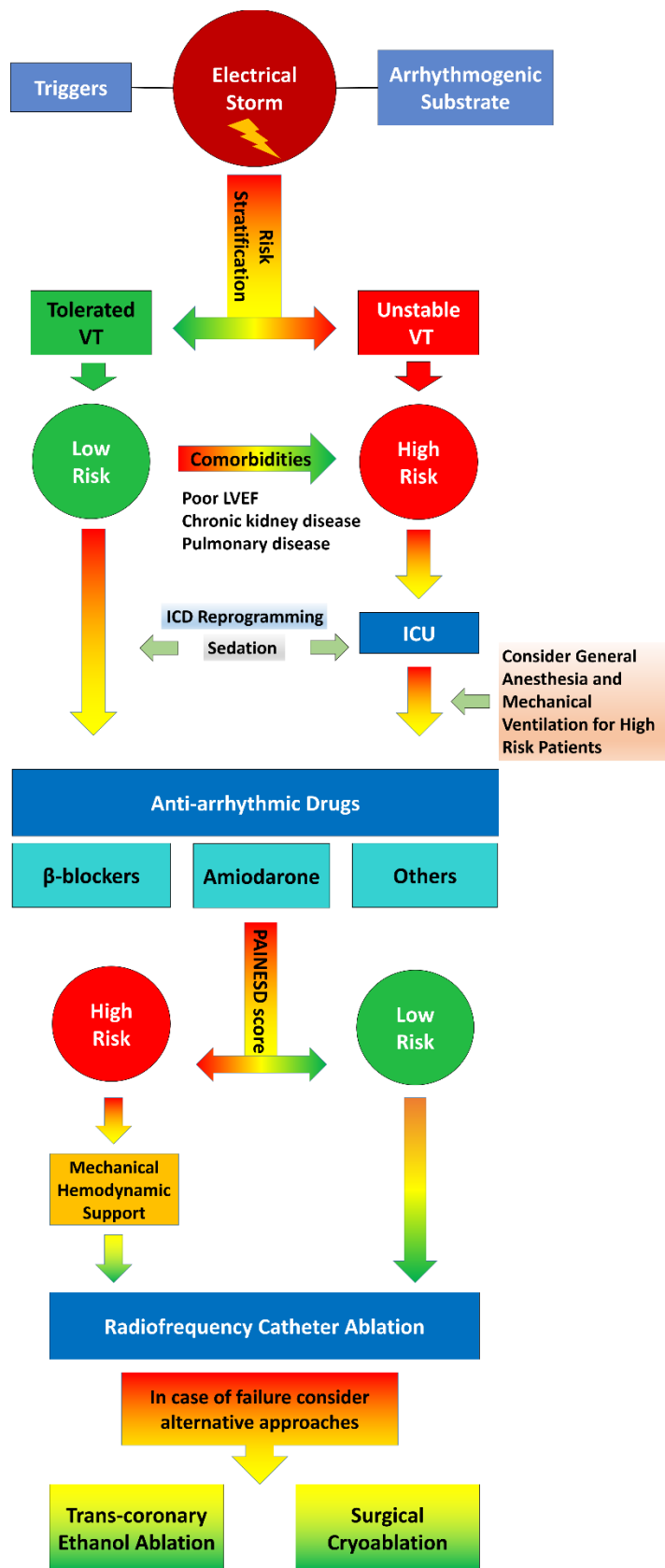
Nevertheless, they should be excluded in the initial patient evaluation. Therefore a table with detailed description of reversible causes would be very useful for the readership. Consequently, figure 1 should be modified and the brief list of reversible causes in the upper left side of this picture should be deleted in an attempt of simplification of this flowchart. Moreover, in this flowchart, it is not clear the meaning of “eliminating reversible factors” in the evaluation of the low risk patients.

We have added a table (Table 1) enlisting all potential reversible causes of electrical storm and we have modified figure 1 according to the reviewer’s suggestion.

Table 1. Reversible Causes of Electrical Storm

Acute Myocardial Ischemia
Electrolyte Imbalances
Decompensated Heart Failure
Hyperthyroidism
Infections, Fever
Pro-arrhythmic drug Effects
Early postoperative period

Figure 1. Proposed algorithm for acute management of patients presenting with electrical storm.



3. In the paragraph about sotalol, authors should specify that the only commercially available form of sotalol is the d, l form.

We modified according to reviewer's suggestion

Reviewer 2:

We thank the reviewer for his/her comments to improve our manuscript

This is a review of the topic of electrical storm in patients with structural heart disease. It is comprehensive, generally well written, and well referenced. There are some minor typos and grammatical errors. Some of the sentences are excessively long and should be broken up (the paragraph on initial care for example has a long running sentence).

We have simplified the running sentence of the “initial care” paragraph according to the reviewer’s comment.

Page 4: “Prolonged sustained VAs as well as multiple ICD shocks in the setting of ES, may contribute to worsening of systolic function and development of a low-output state leading to in cardiogenic shock and multiple organ failure”

Reviewer 3:

The manuscript by Muser et al is a general review on the management of electrical storm in patients with structural heart diseases. It is well structured, and covers all the management areas of electrical storm. I have no additional comment for this excellent paper.

We thank the reviewer for his/her appreciation of our manuscript