Reviewer’s report

Title: Multiple aneurysms in subarachnoid hemorrhage - Identification of the ruptured aneurysm, when the bleeding pattern is not self-explanatory. Development of a novel prediction score.

Version: 2 Date: 30 Jan 2020

Reviewer: James Burke

Reviewer's report:

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I only find the authors' argument in favor of their analytic technique partially persuasive. First, their argument that overfitting is unlikely to be a large problem is based on a rule-of-thumb that was derived from simulations using logistic regression. Yet, they have chosen a technique that requires more data to fit a model and, thus, is more susceptible to overfitting. (Also, it is likely that the rule of thumb is itself somewhat suspect). Second, and more importantly, I discussed overfitting as part of a broader point — there is no justification for why the authors chose this model. Why choose a model that increases the risk for overfitting when the upside of that model is that it enables variable selection, when you have adequate prior data to inform variable selection? The authors implied argument is that the risk for overfitting is less than the gains from variable selection. Yet, they neither explicitly state this argument nor defend the reason why automated variable selection is important.

At the end of the day, it is unlikely to influence the conclusions one way or the other, but I would have like to have seen a justification for why this

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
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Yes

Are the conclusions drawn adequately supported by the data shown?
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