Reviewer's report

Title: Anomalous origin of the left coronary artery from the pulmonary artery (ALCAPA) presenting with ventricular fibrillation in an adult: a case report

Version: 1 Date: 27 February 2008

Reviewer: Robert A Cowles

Reviewer's report:

This reviewer had the pleasure of reviewing this manuscript describing a case of ALCAPA presenting with ventricular fibrillation. My comments are as follows:

A) Major Compulsory Revisions:

1. The title of the manuscript suggests that the authors will describe and discuss the arrhythmia and its relationship to the anatomical anomaly in detail. This reviewer was surprised to note that there was no significant mention of arrhythmias in the DISCUSSION section of the paper. The largest paragraph in the DISCUSSION reviews the surgical options in cases of ALCAPA. Is this the message of this paper? Please see the following comment and the recommendations that follow.

2. In total, this paper does not add a significant amount to the available literature on ALCAPA. The discussion section of the paper is not deep and the surgical options are well known. The images that are included (especially Figures 2 and 3) are very impressive and, to this reviewer, are the eye-catching portion of this manuscript. This manuscript can be revised with two potential aims in mind. One option is to shorten the text significantly and submit this manuscript as an interesting image since this part of the case is indeed impressive. Another option is to change to focus of the text and actually discuss the issue of arrhythmia with abnormal coronary arteries. This would tie the text of the paper and the case presentation more closely.

B) Minor Essential Revisions:

1. When discussing ALCAPA and its presentation in young children, feeding intolerance and EKG findings in 1-2 month-old babies should be mentioned since these are the subtle initial findings that should be stressed and not overlooked.

2. The word "DISCRETE" in the 4th line of the Abstract should be changed to "SUBTLE". This is a better word for what the authors are trying to say.

3. In the third paragraph of the Background section, the word "PRESENTS" should not be plural and should be "PRESENT"

4. In the last sentence of the Case presentation section, the word "LEAD" should be changed to "led".

5. In the second paragraph of the Discussion, the word "MAMMARIAN" should
be changed to "MAMMARY".

6. In the third paragraph of the Discussion, the word "SHOWS" should be changed to "SHOW"

7. In the fourth paragraph of the discussion, the word "GOOG" should be changed to "GOOD".

8. In the final paragraph of the discussion, the word "OG" should be changed to "OF".

9. In the Reference list, reference #5 (Collins, et al) should have a volume number and page numbers for the article. As it reads, there is only a Journal name. This is not sufficient.

10. Figure 1 is not very clear in terms of the important structures in cases of ALCAPA. A clearer image would be better. Alternatively, if this is the best image available, the authors should add arrows pointing out the right coronary artery, the collateral vessels to the left coronary, and the entry of contrast into the pulmonary artery. This helps the reader decipher this image.

C) Discretionary Revisions:

1. This reader would like to see a bit more detail on the pre-admission symptoms and pre-hospital course. This is not mandatory but it would put the case into better perspective. It seems as if the patient was dead, but then was resuscitated and then had successful surgery.

2. The diagnosis of ALCAPA can often be made by echocardiography (ECHO). It appears that the authors’ institution missed the diagnosis by ECHO in the presented case. The authors do not discuss this and instead recommend CT angiography instead. If this recommendation is to be made, it would seem that a discussion of the advantages and limitations of all other diagnostic modalities is warranted.

I appreciate the opportunity to review this manuscript. I would be happy to review a revised manuscript if necessary.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published