Reviewer's report

Title: Pulmonary artery enlargement in schistosomiasis associated pulmonary arterial hypertension

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Reviewer: Brian Graham

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Hoette and colleagues have investigated the presence of pulmonary artery enlargement in schistosomiasis-associated pulmonary arterial hypertension (Sc-PAH) in this retrospective study. This novel analysis adds key data to this unfortunately very prevalent but relatively understudied disease. They have observed that, relative to patients with idiopathic disease, Sc-PAH patients on average have significantly enlarged pulmonary arteries.

Major Compulsory Revisions:
1. Please plot the individual pulmonary artery measurements in a new figure, such as in the form of a vertical point plot with means and standard deviations indicated, to convey if the data are normally or non-normally distributed. In several places the authors use the term “aneurismal” which possibly implies a subset of patients with extreme dilation—perhaps the data instead show on average an increase in diameter.

Minor Essential Revisions
1. Can the authors comment on how many Sc-PAH versus IPAH patients were treated with vasodilators at the time the CT scan was done? A prior publication by the same group (dos Santos Fernandes CJ et al. Survival in schistosomiasis-associated pulmonary arterial hypertension. J Am Coll Cardiol. 2010 Aug 24;56(9):715-20.) commented that at time, IPAH but not Sc-PAH patients were treated with vasodilator medications (methods section). This difference in treatment could also affect the pulmonary artery enlargement observed.

2. Line 4 of the abstract “whether or not this is a feature of Sch-PAH or a casual finding.” is unclear. I think the authors mean to say either (a) the prevalence of PA enlargement in Sc-PAH is greater than IPAH, or (b) on average the pulmonary artery is more enlarged in Sc-PAH than IPAH. Would rephrase.

Discretionary Revisions
1. In the discussion, the authors mention that a key factor may be chronicity of disease, i.e. Sc-PAH is more mild so may be more longstanding. Although I realize this may not be possible with the data available, if the data are available it would be helpful to know the duration between onset of symptoms in the Sc-PAH patients versus IPAH patients—it may be that in Sc-PAH the disease is more longstanding but hemodynamically more mild compared to IPAH.
Level of interest: An article of outstanding merit and interest in its field

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

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.