Author's response to reviews

Title: Resting tachycardia, a warning sign in anorexia nervosa: case report

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Matt Hodgkinson
Assistant Editor
BMC Journal

Dear Mr. Hodgkinson:

Thank you for your favorable review of our manuscript entitled "Resting tachycardia, A Warning Sign In Anorexia Nervosa: Case Report." I have enclosed a revised manuscript along with this cover letter addressing all of the highlighted compulsory revisions. I believe that we have fashioned a draft accommodating their important criticisms and enhancing the quality of the manuscript. Specifically:

Reviewer # 1:

We thank the reviewer for commenting that the paper was clearly written, and their input.

The reviewer correctly identifies an area requiring further comment: cardiac autonomic function in anorexia nervosa. As this was considered to be a major compulsory revision, we have restructured the conclusion to reflect this topic in the last paragraph on page # 6.

We agree that anorexia nervosa is usually characterized by increased heart rate variability (HRV), and have included this point and added a 2003 reference suggesting normalization of HRV with refeeding. The reviewer makes an important counterpoint that reduced heart rate variability in this disorder may explain the high risk of sudden death. We agree and have incorporated this theme though it is unproved. We recently submitted a manuscript on this topic (provisionally accepted Am J Cardiol), demonstrating decreased HRV (both time and frequency domains) amongst a small (n=6) sample of outpatients with chronic anorexia nervosa. Again, this topic has now been woven into the last paragraph.

Reviewer # 2:

The reviewer suggests that 24-hour Holter monitoring data would enhance the paper. This dovetails with the comments of reviewer #1 but unfortunately was not obtained. However, the timely reduction in heart rate with antibiotic therapy is supportive, and has been reiterated for clarity on page 6.

The reviewer points out that bacterial sepsis may have influenced heart rate. I concur, and have included blood culture results on page 4.
The reviewer correctly notes that QTc prolongation may be due to magnesium, potassium, and calcium depletion. They were all normal. This has been added to the write-up on page 4.

The reviewer notes that renal function measures should be included. This has also been added to page 4. Since the patient, was euvoletic by examination and demonstrated no orthostatic blood pressure changes, urine osmolarity studies were not included.

Finally the reviewer correctly notes the association of refeeding in anorexia nervosa and LV dysfunction/heart failure, which could account for the elevated heart rate. I have added a more complete cardiovascular examination on page 3 including an estimation of jugular venous pressure (JVP). The findings of clear lungs, normal JVP, normal oxygen saturation and no cardinal symptoms of heart failure certainly argue against this diagnosis, though the point is well taken. Moreover, the patient was not actively refeeding during these events.

We believe these revisions have enhanced the quality of the manuscript and we thank the reviewers for all of their helpful suggestions. We trust the manuscript in its present form is now suitable for publication. Please do not hesitate to contact me should you require further clarification.

Sincerely,

Philip S. Mehler, MD
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