

**ESPS Peer-review Report**

**Name of Journal:** World Journal of Cardiology

**ESPS Manuscript NO:** 8334

**Title:** Respiratory modulation of cardiac vagal tone in Lyme disease

**Reviewer code:** 00608305

**Science editor:** Gou, Su-Xin

**Date sent for review:** 2013-12-26 11:09

**Date reviewed:** 2013-12-26 21:11

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input checked="" type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C (Good)	<input type="checkbox"/> Grade C: a great deal of	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)	language polishing	BPG Search:	<input checked="" type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

**COMMENTS TO AUTHORS**

1. I am not sure in which period of the disease pts were analyzed did you test also IgG ? - you do not provide data on clinical status of pts 2. Other spirochetal disease (syphilis), autoimmune disease, or other infections such as HIV, Epstein-Barr virus, and Helicobacter pylori may cause false-positive results. 3. Despite matching on basal vagal tone controls have not statistically significant but a little higher basal vagal tone and lower heart rate - maybe control group in contrast to Lyme pts group are more physically fit and trained - did you check on that ? 4. In table 1 please confirm that arterial pressure are mean pressure values - maybe you can add an additional information of heart rate during breathing.

**ESPS Peer-review Report**

**Name of Journal:** World Journal of Cardiology

**ESPS Manuscript NO:** 8334

**Title:** Respiratory modulation of cardiac vagal tone in Lyme disease

**Reviewer code:** 02446043

**Science editor:** Gou, Su-Xin

**Date sent for review:** 2013-12-26 11:09

**Date reviewed:** 2013-12-26 23:18

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C (Good)	<input checked="" type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Minor revision
<input checked="" type="checkbox"/> Grade E (Poor)		<input type="checkbox"/> No records	<input checked="" type="checkbox"/> Major revision

**COMMENTS TO AUTHORS**

With only 2 sentences in its results section, the paper seeks to convince the reader that Lyme disease reduces vagal tone, a finding which contradicts the well established fact that Lyme disease is associated with various grades of atria-ventricular block, a high vagal state. To support such a controversial finding, authors must be detailed in their methodology and convincing in presenting their results. For example: i) How was Lyme diagnosed and which stage of disease were the patients in ii) What is the actual IgM level of the patients, and were serial specimens taken iii) How were the Lyme patients selected, (at infectious clinic, inpatients or even routine screening) iii) how were controls selected and matched with cases? Description of vagal tone assessment is necessary, and merely providing 2 references instead of a proper descriptive methodology makes the writing appear hurried and apathetic. What is the temperature status of patients and controls? Patients in this series with Lyme disease have a higher heart rate than controls (72 vs 64), with no data on febrile state; fever causes higher heart rates and reduced vagal tone. Might not their results then merely show a reduced vagal tone in Lyme due to fever?

**ESPS Peer-review Report**
**Name of Journal:** World Journal of Cardiology

**ESPS Manuscript NO:** 8334

**Title:** Respiratory modulation of cardiac vagal tone in Lyme disease

**Reviewer code:** 00646232

**Science editor:** Gou, Su-Xin

**Date sent for review:** 2013-12-26 11:09

**Date reviewed:** 2013-12-28 03:38

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input checked="" type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C (Good)	<input type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input checked="" type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)		<input type="checkbox"/> No records	<input type="checkbox"/> Major revision

**COMMENTS TO AUTHORS**

Some comments: Introduction is very short Materials & Methods: What are the inclusion criteria and what are the exclusion criteria? What is the clinical stage and presentations of the patients? Early or late, localized or disseminated? With cardiac or nervous system affection or without?? What is the power of work of the study?? What about any medications used and its effects on the vagal tone including for example the antihistaminic or cardiac medications?? What is the model of neuroscope used?? Results: Very truncated Discussion: Very short and does not explain the results. Last sentence: (The causative *Borrelia* bacteria are able to undergo pleomorphic changes, including into a cystic form; indeed, it has been suggested that this may at least in part account for some cases of antibiotic resistance and recurrence of Lyme disease. It may be that this cystic form is often to be found in the brainstem in affected patients.). This is not an explanation because it happened only in chronic Lyme neuroborreliosis