

## ESPS PEER-REVIEW REPORT

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

**ESPS manuscript NO:** 32440

**Title:** Cardiac damage in athlete's heart: When the "supernormal" heart fails!

**Reviewer's code:** 00699199

**Reviewer's country:** United States

**Science editor:** Fang-Fang Ji

**Date sent for review:** 2017-01-11 17:01

**Date reviewed:** 2017-01-13 01:33

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input checked="" type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good		<input type="checkbox"/> Duplicate publication	
<input type="checkbox"/> Grade D: Fair	<input checked="" type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade E: Poor	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Minor revision
		BPG Search:	<input checked="" type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

This is an informative and interesting review of the literature on cardiac damage in the athlete's heart. However, it requires a great deal of English grammar corrections.

## ESPS PEER-REVIEW REPORT

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

**ESPS manuscript NO:** 32440

**Title:** Cardiac damage in athlete's heart: When the "supernormal" heart fails!

**Reviewer's code:** 00225357

**Reviewer's country:** Italy

**Science editor:** Fang-Fang Ji

**Date sent for review:** 2017-01-11 17:01

**Date reviewed:** 2017-01-12 18:32

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input checked="" type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input checked="" type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

This a well written and comprehensive review on athlete's heart. The clinical conundrum of the athlete's heart remains unsolved as yet and Authors try to shed light on this pre-clinical entity. They should be praised for their work and for providing an overview of the different scenarios from physiology to pathophysiology of the exercising heart. There are only minor issues to be solved. The sentence: "Potential mechanisms have been proposed to explain cTn elevations after prolonged or strenuous exercise, but actually, the release of cTn by healthy individuals cannot be explained by any of these theories" needs a reference or a brief discussion on the mechanisms leading to the increase of cTn. The sentence. "Several studies have been identified DGE in extensively trained veteran athletes" should be rephrased because unclear. More large should read larger studies in the conclusion paragraph of the discussion section of the manuscript. The English language should be revised by a native speaker

## ESPS PEER-REVIEW REPORT

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

**ESPS manuscript NO:** 32440

**Title:** Cardiac damage in athlete's heart: When the "supernormal" heart fails!

**Reviewer's code:** 00227594

**Reviewer's country:** United States

**Science editor:** Fang-Fang Ji

**Date sent for review:** 2017-01-11 17:01

**Date reviewed:** 2017-01-17 06:20

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input checked="" type="checkbox"/> Accept
<input checked="" type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good		<input type="checkbox"/> Duplicate publication	
<input type="checkbox"/> Grade D: Fair	<input checked="" type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade E: Poor	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Minor revision
		BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

This is a pertinent review of an area which continues to evolve, and where much more data is needed. The review is generally well written and the content is appropriate. Other than language and grammatical editing, my only main comment relates to the organization of the content in the first few sections. Each section tends to jump back and forth between discussions related to physiologic vs pathologic remodeling. I understand that it remains to be determined the exact distinctions between the two, but it would be improved if each section encompassed by pages 5-10, organized the content by first discussing the structural changes and mechanisms of physiologic remodeling, then switch to the structural changes and mechanisms that may be pathologic (at least based on current understanding). Just some consistent flow to make it easier to read. Table 4 is probably not needed.

## ESPS PEER-REVIEW REPORT

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

**ESPS manuscript NO:** 32440

**Title:** Cardiac damage in athlete's heart: When the "supernormal" heart fails!

**Reviewer's code:** 01206034

**Reviewer's country:** Japan

**Science editor:** Fang-Fang Ji

**Date sent for review:** 2017-01-11 17:01

**Date reviewed:** 2017-01-18 09:08

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	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"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good		<input type="checkbox"/> Duplicate publication	
<input checked="" type="checkbox"/> Grade D: Fair	<input checked="" type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Minor revision
	<input type="checkbox"/> Grade D: Rejected	BPG Search:	<input checked="" type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

This is an interesting review article written by Carbone and colleagues. Authors extensively and nicely reviewed articles regarding such interesting topics, and this is basically well-written. However, I have following comments. 1. The first section, Physiological versus pathological cardiac hypertrophy....., should be reorganized. Authors should describe more details why athlete's heart is physiological despite results of recent studies where myocardial damage during intense exercise and RV inflammation and fibrosis in long-term endurance athletes. In addition, I do not understand why authors described ischemic core hypothesis. If authors really want to describe this topic here, they should add description regarding relationship between this hypothesis and athlete's heart. Furthermore, details mechanisms regarding IGF-1 release and ET-1 and Ang II elevations should be described. Last paragraph seems not to relate to the athlete's heart. Figure 1 is not useful and should be exchanged to the conceptual figure which represent contents of this section. Contents in the Table 1 are not appropriately described in the text body. Detailed explanation should be added. 2. In the second section, authors should add more details regarding proposed potential mechanisms to explain cTn elevation after prolonged or strenuous exercise. They describe only two mechanisms right now



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(increase in membrane permeability and actual injury with fibrosis). There might be other proposed mechanisms. 3. In the third section, “exercise-induced myocardial fibrosis”, authors should minimize explanation regarding cardiac MRI. On the other hand, authors should consider to add MR images showing DGE in athletes. Description regarding ARVC seems to be redundant. 4. Authors should create a list of typical morpho-functional changes in cardiac structures among athletes and summarize pathogenesis of each morpho-functional change (LA, RA, LV, RV and IVC) as Table or Figure. 5. Entire manuscript should be edited by English expert. There are several jargons and inappropriate sentences.

## ESPS PEER-REVIEW REPORT

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

**ESPS manuscript NO:** 32440

**Title:** Cardiac damage in athlete's heart: When the "supernormal" heart fails!

**Reviewer's code:** 02446694

**Reviewer's country:** Japan

**Science editor:** Fang-Fang Ji

**Date sent for review:** 2017-01-11 17:01

**Date reviewed:** 2017-01-26 06:34

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input checked="" type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input checked="" type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

The authors reviewed the mechanisms of cardiac damage in athlete's heart multilaterally. This review is well-written and very educative. I have no questions and requests regarding the contents of manuscript. I have only one question regarding word. Page 7 line 6. Is "Autocrine e paracrine" right?

## ESPS PEER-REVIEW REPORT

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

**ESPS manuscript NO:** 32440

**Title:** Cardiac damage in athlete's heart: When the "supernormal" heart fails!

**Reviewer's code:** 02638028

**Reviewer's country:** Japan

**Science editor:** Fang-Fang Ji

**Date sent for review:** 2017-01-11 17:01

**Date reviewed:** 2017-01-22 21:58

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input checked="" 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"/> The same title	<input type="checkbox"/> High priority for publication
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		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

It is a great review about the cardiac dysfunction observed in athlete's heart. Table 2 is somewhat difficult to understand. The explanation of each mechanism should be reconsidered.