

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Stem Cells

**Manuscript NO:** 46609

**Title:** Unmodified autologous stem cells at point of care for chronic myocardial infarction

**Reviewer's code:** 02728252

**Reviewer's country:** Egypt

**Science editor:** Fang-Fang Ji

**Reviewer accepted review:** 2019-03-26 02:15

**Reviewer performed review:** 2019-03-27 07:37

**Review time:** 1 Day and 5 Hours

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language	(High priority)	<input type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input type="checkbox"/> No

### SPECIFIC COMMENTS TO AUTHORS

This an interesting novel basic study evaluating the use of unmodified autologous stem cells at point of care for treatment of chronic myocardial infarction. It has a clear hypothesis and a sound design and the results have an internal and external validity.



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However, the following minor corrections are needed 1. According to the Journal style, No section for the background in the abstract 2. Please be consistent in putting the value of significance to be = or > or < 3. I wonder why the authors use (e. g.) in citing the references in the text

#### **INITIAL REVIEW OF THE MANUSCRIPT**

##### ***Google Search:***

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ No

##### ***BPG Search:***

- ☐ The same title
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- ☐ Plagiarism
- ☐ No

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Stem Cells

**Manuscript NO:** 46609

**Title:** Unmodified autologous stem cells at point of care for chronic myocardial infarction

**Reviewer's code:** 02446101

**Reviewer's country:** China

**Science editor:** Fang-Fang Ji

**Reviewer accepted review:** 2019-03-28 09:57

**Reviewer performed review:** 2019-03-28 10:15

**Review time:** 1 Hour

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input checked="" type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input checked="" type="checkbox"/> Major revision	<input checked="" type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

### SPECIFIC COMMENTS TO AUTHORS

The authors report results derived from a feasibility study on pigs whose left anterior descending (LAD) artery was occluded for 180 min. Four weeks later, the fresh, uncultured, unmodified, autologous adipose-derived regenerative cells (UA-ADRCs)

were retrogradely delivered into the balloon blocked LAD vein (control: delivery of saline). Another six weeks later, mean left ventricular mass (+29%) and cardiac output (+37%) had increased ( $p < 0.01$ ) after delivery of cells. The combination of the procedure used for isolating stem cells and the novel cell delivery route applied in the present study potentially opens new horizons for clinical therapy for chronic myocardial infarction. The manuscript provided some new idea to the readers. However, there're still two issues which should be addressed. 1. The characterization of adipose-derived regenerative cells is not enough. The multidirectional differentiation induction experiments should be conducted. 2. In the discussion part, a review of previous studies should be added in. Furthermore, the creative points of this study should be clearly discussed in comparison with previous studies. So, major revision should be recommended.

#### **INITIAL REVIEW OF THE MANUSCRIPT**

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- ☐ No

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Stem Cells

**Manuscript NO:** 46609

**Title:** Unmodified autologous stem cells at point of care for chronic myocardial infarction

**Reviewer's code:** 02446277

**Reviewer's country:** Romania

**Science editor:** Fang-Fang Ji

**Reviewer accepted review:** 2019-03-26 08:21

**Reviewer performed review:** 2019-04-03 07:33

**Review time:** 7 Days and 23 Hours

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input checked="" type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input checked="" type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input checked="" type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

### SPECIFIC COMMENTS TO AUTHORS

The manuscript submitted by Haenel A et al. report delivery of fresh, uncultured, unmodified, autologous adipose-derived regenerative cells (UA-ADRCs) in chronic myocardial infarction. According to the authors, the treatment is effective, producing a

significant increase in cardiac output without adverse effects. The study is very good, with a lot of methods and interesting results. The manuscript has a little unusual situation. It is found online in the form of .pdf under the title "Unmodified, autologous adipose-derived regenerative cells improve cardiac function, structure and revascularization in a porcine model of chronic myocardial infarction (<https://www.biorxiv.org/content/biorxiv/early/2018/03/21/286468.full.pdf>) and even has a citation in WJSC Feb 2019 (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6397807/>), reference 95. However, it does not appear to be published in a journal. Minor suggestions: Introduction: It is unusual that in the Introduction section, with the aim and hypothesis of the study, the results to be also presented: "Thus, it was the aim of the present feasibility study to test in a porcine model for the study of CMI the following hypotheses: 1) occlusion of the left anterior descending..... statistically significant ( $p<0.05$ ) improvement of the LVEF by at least 15%..... and 2) the same animal model shows statistically significant improvements...." Results: Characterization of UA-ADRCs: The phenotype of ADRC cells is unclear. Population seems incompletely characterized by flow cytometry. Important stem cell markers such as CD90 or CD105 are missing.

## INITIAL REVIEW OF THE MANUSCRIPT

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[ Y ] No