

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Clinical Cases

**Manuscript NO:** 47445

**Title:** Evaluation of right ventricular volume and systolic function in normal fetuses using intelligent spatiotemporal image correlation

**Reviewer's code:** 02856631

**Reviewer's country:** Netherlands

**Science editor:** Jin-Lei Wang

**Reviewer accepted review:** 2019-04-08 10:48

**Reviewer performed review:** 2019-04-24 10:00

**Review time:** 15 Days and 23 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 checked="" type="checkbox"/> Grade B: Very good	<input checked="" 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 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

Spatiotemporal image correlation technology overcomes many of the shortcomings of conventional 2D ultrasound in the measurement of fetal ventricular volume and evaluation of fetal cardiac function. Recently, a number of studies have used STIC



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technology in combination with organ computer-aided analysis software to measure fetal ventricular volume and evaluate heart function, with proven accuracy and feasibility. However, spatiotemporal image correlation still has some limitations and the imaging principle determines that spatiotemporal image correlation is not a real-time 3D imaging technology. One-way scanning using the sensors during the scanning process execution is slow, which leads to relatively long image acquisition time. Therefore, spatiotemporal image correlation is vulnerable to the effects of fetal and maternal respiration, resulting in degradation of image quality. The new intelligent spatiotemporal image correlation technology acquires high-resolution volumetric images of one cardiac cycle in only 2 s, thus reducing the effects of fetal movement on the image. In this study, the intelligent spatiotemporal image correlation technique was used to measure right ventricular volume in normal fetuses, and to evaluate right ventricular systolic function to provide a new method for more accurate and convenient evaluation of fetal heart function. The study is designed very well. The methods are very detail. Sample size is very big, and inclusion criteria is clear. Comments: 1. It seems the background is missing in the abstract, please add it. 2. The results are interesting. Are there any data about the follow up? If so, please add and discuss it. 3. Discussion is good. The references are updated. 4. Manuscript requires an editing. Some minor language polishing should be corrected.

## INITIAL REVIEW OF THE MANUSCRIPT

### *Google Search:*

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



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[ ] Plagiarism

[ Y ] No

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Clinical Cases

**Manuscript NO:** 47445

**Title:** Evaluation of right ventricular volume and systolic function in normal fetuses using intelligent spatiotemporal image correlation

**Reviewer's code:** 02930524

**Reviewer's country:** Germany

**Science editor:** Jin-Lei Wang

**Reviewer accepted review:** 2019-04-08 10:47

**Reviewer performed review:** 2019-04-24 10:02

**Review time:** 15 Days and 23 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 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 checked="" type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input 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

Very interesting study about the value of intelligent spatiotemporal image correlation in evaluating right ventricular volume and systolic function in normal fetuses. The manuscript is very well written. I have no specific comments. Only some minor

language polishing should be revised.

#### INITIAL REVIEW OF THE MANUSCRIPT

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- ☐ Plagiarism
- ☐ No

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