

## **Answering reviewers**

**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

### **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 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.

Thank you very much for your review about "Evaluation of right ventricular volume and systolic function in normal fetuses using intelligent spatiotemporal image correlation". I will answer the four comments above. The first comment about the background is missing in the abstract, i will add the background in the new upload file. The second comment about data followed up. I am sorry to tell you that I have been in Tibet for supporting the hospital here since i finished the 124 examinations, so there are no data about the follow up now, maybe after the work in Tibet i could continue my research. The third comment about the references, the references have been updated, thank you. The fourth comment about the manuscript requires an editing and some minor language polishing should be corrected. These problems have been solved. Thank you for your work and wish you good luck.

**Reviewer's code:** 02930524

#### **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.

Thank you very much for your review. I will answer the comments you concerned. I have revised the language in my new update file. Thank you again for your review.