Reviewer’s report

Title: Stress matters! Psychophysiological and emotional loadings of fetal magnetic resonance imaging

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Reviewer: Francesco D’Antonio

Reviewer’s report:

In the current study, the authors aimed to explore the emotional and psychophysiological reactions of pregnant women undergoing fetal MRI. 60 women were prospectively evaluated using standardized measures of anxiety, emotional states and depressive symptoms. They found significantly differences in fast and slow physiological stress measures between women with and without a supporting person accompanying them to the examination. Furthermore, women with well-marked stress coping strategies experienced lower levels of stress during the examination.

The topic of the study is original and shows how fetal MRI assessment should be tailored and an appropriate counselling provided in order to avoid unnecessary parental anxiety.

The statistical analysis is appropriate, the conclusions in line with the results and the manuscript generally well written.

I would therefore recommend it for publication in the journal and I have only minor queries that should be address.

- The authors did not find any significant impact of severity of diagnosis on stress responses. However, the three categories are not well described in the manuscript. I think that adding a supplementary table showing the different anomalies in the three groups might help in understanding why there was no difference in the stress response among the different groups.

- Do the authors have any information regarding the maternal stress response in case fetal MRI change the diagnosis of the scan? It would be interesting to know the maternal stress response in case of a false positive US diagnosis (MRI negative). This would highlight the need for tailoring fetal MRI.

- The authors performed an inter-group comparison for several characteristics, such as the presence of an accompanying person, type of anomaly etc. Was logistic regression analysis used to assess whether these characteristics were independently associated with higher stress responses?

- Tables 1 and 3 should be re-formatted and the p-value provided for each category.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests