Reviewer's report

Title: False positive morphologic diagnoses at the anomaly scan; marginal or real problem? A population-based cohort study.

Version: 1
Date: 2 November 2013

Reviewer: Gabriele Tonni

Reviewer's report:

1. Is the question posed by the authors well defined?
1. Reviewer: Yes, the question posed by the authors is well defined.

2. Are the methods appropriate and well described?
2. Reviewer: The methods are appropriate and well described. However, authors need to define abnormal amniotic fluid and IUGR in this section (it is only defined later as <3rd centile in Table 3).

3. Are the data sound?
3. Reviewer: Yes the data are correctly analyzed and reported. However, I do suggest to restructured the style of the Tables as values regarding SD are reported in squared brackets only in Table headings generating difficult interpretation for Readers.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
4. Reviewer: Yes, the manuscript adhere to the relevant standards for reporting and data deposition.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
5. Yes, discussion and conclusions are well balanced and supported by the data. However, I suggest authors to describe and analyze the reasons why “no false positive diagnoses led to termination of pregnancy”.

I disagree with authors statement of reduced accuracy of the prenatal ultrasonography in case of multiple congenital anomalies. I suggest authors to expanded this paragraph and to report robust publications to support their statement.

I totally disagree with authors statement that NMR (nuclear magnetic resonance) could better detect callosal anomalies at an early stage of pregnancy compared with prenatal ultrasound. Fetal neuroscan currently rely upon multiplanar ultrasound, using either transabdominal or transvaginal approach. However, as the use of real-time 2D/3D ultrasound equipment and technology is increasing and diagnostic clusters of brain anomalies clarified, accurate reconstruction of the midline echo can be obtained (I suggest to report published works by Rizzo G...
et al. and the recent work by Tonni G. et al. regarding the role of 3D reslicing technique in the study of brain anomalies and cerebral midline echo). Therefore, it is my opinion that NMR should always be performed as a complementary, ultrasound-targeted second step examination. Moreover, using 3D ultrasound, volume data sets can be send to remote site for expert consultation using DICOM technology. Accurate prenatal ultrasound diagnosis of brain and callosal anomalies can be thus achieved at lower cost comparing with that of antenatal NMR requiring dedicated radiologist/s. I suggest this paragraph be expanded accordingly to Reviewer's suggestions and rewritten.

6. Are limitations of the work clearly stated?
6. Reviewer: Yes, the limitations of the work are clearly stated.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
7. Reviewer: Yes, the authors clearly acknowledge any work upon which they are building.

8. Do the title and abstract accurately convey what has been found?
8. Reviewer: Yes, the title and abstract accurately convey what has been found.

9. Is the writing acceptable?
9. Reviewer: Yes, the writing is acceptable.

Reviewer's report: Minor Essential Revisions.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

'I declare that I have no competing interests'