Reviewer's report

**Title:** Maternal thyroid function and the outcome of external cephalic version: a prospective cohort study

**Version:** 1  **Date:** 29 September 2010

**Reviewer:** Sicco Scherjon

**Reviewer's report:**

This prospective study shows a relation between TSH concentrations and the success rate of ECV. The study is embedded in a research group which has some earlier research done in this very specific field.

I have some minor suggestions for change, which are basically only concerning the text.

**Introduction:**
Pg 3. I feel the need for some more background information (and also some reference to the literature) concerning the line "Since maternal thyroid...affect ECV outcome". Is there solid evidence that thyroid function is related to the probability of a spontaneous version? This study shows no relation with T4 (thyroid function) and only with TSH (pituitary function!). As stated in the discussion high TSH levels might influence smooth muscle (uterine?) stiffness.

**Method:**
Pg 5: Is there evidence that the use of an oxytoxin antagonist is improving the external version rate?

As fetal motoneurodevelopment might be one of the explaining variables one would especially be interested in fetal T4 and/or TSH levels. Where these variables determined in cord blood and if not this should be stated in the discussion on pg 10 that this is another limitations of this study!

**Discussion:**
Why is there only a relation between TSH (besides the two possibilities mentionend) and more specifically no relation with T4??.

Are there any suggestions for "finding the mechanism behind". Look for the TSH receptor in uterine muscle tissue; umbilical cord TSH and/or T4 levels. Would T3 be of more importance?

**Level of interest:** An article whose findings are important to those with closely related research interests

**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'