Reviewer’s report

Title: Longer gravidity and the slower development of the foetus in women with latent asymptomatic toxoplasmosis

Version: 1 Date: 10 April 2007
Reviewer: Torvid Kiserud

Reviewer’s report:

The present study has sound hypothesis with potential new information in the field. Hypothesis and aim are clearly stated.

The methods are clearly stated but incompletely reported. Last menstrual period (LMP) is essential information in the analysis. It is expected that at least 20% of the pregnant population has no certain account of LMP, or the LMP may be irregular. The present study has no account of menstrual data. Irregular LMP is also more common with growing age and thus a possible confounder (in the present study maternal age was an important factor).

During the period 1996-2004 women may have given birth to more than one child, and as mentioned below, possibly more frequently repeat male births. I cannot see that siblings are accounted for.

I would expect an increased incidence of toxoplasma sero-conversion, multiparity, and possibly also increased number of male neonates (if the society give preference to repeat male rather than female births) with growing age. I would like to see this being controlled for in the statistics.

Birth (and pregnancy duration) is not normally distributed, which need to be taken into account during the analysis also in the present study.

A more detailed account of the toxoplasma test is required (cut off level for pregnant women, test performance etc).

There were notably more male than female neonates of sero-positive mothers. Have the authors searched for information that the toxoplasma serology may be different in male and female pregnancies, which possibly would require a different cut off levels for the test?

Information on when ultrasound measurements were taken is contradictory, 8-12, 16, 20 or 30 weeks or all (page 5), and the results of these measurements are not displayed, nor are the results of the present analysis of these data.

Gender is an important factor in growth and also in length of pregnancy. Boys tend to be assigned to an overestimated gestational age by ultrasound biometry (typically 1.5 days), tend to grow faster, and have shorter pregnancies according to LMP (linked to paternal birthweight). The analysis and results are presented such that I cannot appreciate whether such effects have been taken into consideration, or how effects are translated into differences in days.

There is no information in the manuscript that permits controlling for social factors or other infectious conditions that may be more common in the toxoplasma sero-converted part of the population. If not available, the point should be discussed in the discussion section with references made to the literature.

I expect that the discussion, conclusion and abstract may be rephrased according to a renewed analysis.

The language needs attention.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field
Quality of written English: Not suitable for publication unless extensively edited

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

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