Reviewer's report

Title: Effects of epidural lidocaine analgesia on labor and delivery: a randomized, prospective, controlled trial

Version: Date: 3 October 2006

Reviewer: Leopold Eberhart

Reviewer's report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

In my view the authors have done a good job revising the manuscript. Partly the style is quite unusual (e.g. the authors use the first person) but acceptable. However, I am still concerned about the statistical part of their work. The power calculation is not correct:

to detect a difference between groups that is about a quarter of the assumed standard deviation (the authors state that they expected a SD of 100 and a delta of 24) the power of 2x197 patients is only 66%.

Here are the results of my calculation using PASS 2002.

Allocation

<table>
<thead>
<tr>
<th>Power</th>
<th>N1</th>
<th>N2</th>
<th>Ratio</th>
<th>Alpha</th>
<th>Beta</th>
<th>Mean1</th>
<th>Mean2</th>
<th>S1</th>
<th>S2</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.66348</td>
<td>197</td>
<td>197</td>
<td>1.000</td>
<td>0.05000</td>
<td>0.33652</td>
<td>100.0</td>
<td>124.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Even if you would perform a post-hoc analysis using the data of table IV (progress of labor of the second stage) only a power of 72% was achieved.

Despite this, I still think that this work is worth to be published but the data should be reported in a correct manner. Thus, I highly recommend that a statistician should review the data and help the authors to carefully interpretate the data.

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes

Declaration of competing interests:

'I declare that I have no competing interests'