Reviewer's report

Title: Enzyme-linked immunoassay for dengue virus IgM and IgG antibodies in serum and filter paper blood

Version: 6 Date: 31 October 2005

Reviewer: Maria G G Guzman

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)

The quality of the manuscript has improved after revision however still there are some important points that required to be considered:

1. Figure 1 shows the diagnostic classification applied in this study. As mentioned previously by this reviewer, authors should include a reference or at least explain why they use this methodology and how or who validated this classification. Normally, the relationship of IgM/IgG for the classification of the infection (primary or secondary infection) is done in early convalescent sera and not in sera collected three or more weeks after onset. Also, authors apply a criteria of >=4 fold of IgGt3/IgGt0 to classify cases as secondary infection (in serum samples without dengue IgM antibodies). For this, it’s important to mention that no IgG titer is compared but OD (optical density values). It’s important to validate the classification that is being applied in this study. It would be desirable to compare the obtained results with those obtained by a gold standard technique.

2. In order to explain the low correspondance in the comparison of serum and filter papers for dengue IgM and IgG antibodies, authors should mention that perhaps the no previous standardization looking for the concentration on Abs on sera filter paper that correspond to the Abs on serum could explain the low sensitivity obtained in this study. There are several papers showing higher figures that those observed in this study and the usefulness of filter paper for blood collection.

3. Discussion (pag 17, paragraph 3): clinicians normally need a fast and early diagnosis result. Although a dengue confirmation diagnosis would be desirable, in routine practice this is not possible because, second sample is normally not available. This reviewer consider that this paragraph should be deleted.

4. Conclusions: this reviewer doesn’t agree with these conclusions. The results obtained in this study, with this particular commercial kit and with this particular esqueme of classification (not validated previously) were not very precise, either the use of filter paper in the conditions of this study. There are many studies using ELISA for IgM, IgG including the application of filter papers for IgM and IgG dengue antibodies in which good figures of sensitivity and specificity are obtained.

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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)

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Discretionary Revisions (which the author can choose to ignore)
What next?: Reject because too small an advance to publish

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

No competing interests