Response to Letter by Chen et al

Response:

Chen and Guo reviewed our recently published systematic review of pharmacological strategies for the management of depression after stroke and performed a meta-analysis of the continuous end points in this review. We had refrained from pooling these end points because of the considerable heterogeneity and methodological shortcomings in the studies reviewed, including small sample sizes and multiple methods used to assess depression both within and across studies. Moreover, Chen and Guo added data from a crossover study and excluded data from a study where mean and standard deviation data were extracted from a published figure.

We conducted our systematic review and meta-analysis to Cochrane standards, in line with our peer-reviewed Cochrane protocol. Cochrane guidelines do not allow post hoc decisions about whether to include or exclude a trial in a systematic review in order to avoid selection bias. We maintain that the data in our systematic review should not be pooled for the following reasons:

1. Data should not be pooled if the trials under consideration are clinically or statistically heterogeneous.
2. Randomization only deals with bias and confounding if a trial is large enough for the randomization to overcome the play of chance. Because small trials were included in our review, there is a real possibility that groups had unbalanced characteristics at baseline, with the exception of exposure to treatment, so that between-group differences in outcomes may be misleading without appropriate adjustments being made for baseline differences.
3. There are several issues to consider when including crossover trial data in a meta-analysis. Although they are too numerous to be covered here, it is important to note that we could not assume there was no carry-over effect of the intervention.

Also, outcome information from this trial was not available from paired analyses, and no data were available on within-individual comparison of treatment effects.

We thank Chen and Guo for their interest in our analysis, but maintain that the data they present are not sufficiently robust to influence clinical practice for the reasons outlined.

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