LETTER

Risperidone for delirium: where do we stand?

Second-generation antipsychotics, such as risperidone, olanzapine and quetiapine, have been studied in delirium treatment due to decreased risk of extrapyramidal symptoms.¹ Our primary aim was to assess the efficacy of risperidone for the treatment of delirium. Our secondary aim was to evaluate the side effects occurrence frequency in comparison with other atypical antipsychotics and with haloperidol.

A systematic review according to the recommendations of the Cochrane group was conducted, and the present report follows PRISMA guidelines.² Two authors (PS and QC) performed independent systematic reviews and data extraction; discrepancies were resolved by consensus. All analyses were performed using the statistical packages for meta-analysis of Stata (V.12) for Mac OS X. For the outcome related to depression scores, we initially calculated the standardised mean difference and the pooled SD of each comparison. The Hedges's *g* was used as the

measure of effect size. The pooled effect size was weighted by the inverse variance method and measured using the random-effects model.

In this systematic review with three clinical trials (*n*=236 patients) published in medical literature that fulfilled eligibility criteria,^{3–5} we found risperidone to be superior than active control groups for treating delirium (Hedge's *g*=0.24; 95% CI 0.01 to 0.48, *p*=0.009 data presented in figure 1). Publication bias was low as evaluated using Egger's regression intercept test. I-squared was of 0% (*p*=0.066), representing low heterogeneity among the studies. Considering the issue of safety, the prevalence of adverse effects did not differ between risperidone and active control groups. Data imputation was based on the occurrence of the most frequent adverse effect for each group. The pooled OR was 1.51 (95% CI 0.74 to 3.07, *p*=0.256).

Main study limitations, however, include small number of studies in spite of a low heterogeneity and low publication bias. The small sample size also compromises external validity and, therefore, generalisability of our findings should be considered carefully. Furthermore, the

selected trials lack homogeneity in reporting delirium aetiology, which made it difficult to properly establish a possible correlation between clinical underlying processes and clinical response.

In conclusion, risperidone is effective in treating delirium, however with a small effect size. Notwithstanding, given the relatively small number of trials published to date, further Phase II and Phase III studies assessing broader samples are fundamental for clarifying the potential impact of risperidone for delirium in daily clinical practice.

Mayra Q Bocatto, Pedro Shiozawa, Alisson Paulino Trevizol, Quirino Cordeiro

Clinical Neuromodulation Laboratory, Santa Casa School of Medicine, São Paulo, Brazil

Correspondence to Professor Pedro Shiozawa. Department of Psychiatry, Santa Casa Medical School, Rua Major Maragiliano, 241, Vila Mariana, São Paulo 01221-020, Brazil; pedroshiozawa@gmail.com.br

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Figure 1 Forest plot showing active versus active comparative group treatment.