Reviewer’s report

Title: Metabolic syndrome in Thai schizophrenic patients: a one-year follow-up study

Version: 1 Date: 8 January 2007

Reviewer: Jim van Os

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General
This study describes a one-year prospective follow-up of the metabolic syndrome in a group of schizophrenic patients that visited a tertiary general hospital in Thailand. Although the authors only report on a small sample (44 patients for the IDF metabolic syndrome, 47 for the ATP III metabolic syndrome), this is the first study that reports one-year follow-up and incidence data for the metabolic syndrome. Nevertheless, several issues need to be addressed before publication.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1. A large proportion of patients is switched from a first generation antipsychotic to a second generation, mostly sertindole, olanzapine and clozapine. These SGAs have a worse metabolic profile than the FGAs, which could have influenced the rate of new-onset metabolic syndrome. This limits the interpretation and generalizability of the incidence rate of metabolic syndrome the authors describe. The authors should report the effect of the medication switch on the development of the metabolic syndrome and its separate components in more detail.
2. The authors exclude the group that meets criteria for the metabolic syndrome at baseline. Given the problems in interpreting their reported incidence rate, as described in point 1, the manuscript would benefit from also separately reporting how the evolution of the group with metabolic syndrome at baseline was, especially since they provided these patients with several lifestyle advices. What was the effect of these advices on rates of the metabolic syndrome? Were there switches in antipsychotic medication in these patients and what was the effect?
3. If possible, the authors should report the ‘adapted ATP III criteria’ (Grundy SM, Cleeman JI, Daniels SR, et al. Diagnosis and management of the metabolic syndrome: an American Heart Association/National Heart, Lung, and Blood Institute Scientific Statement. Circulation 2005;112:2735-2752), existing of a lower threshold for FPG (>99 mg/dl) and medication use for any of the conditions of the metabolic syndrome as fulfilling the specific criterion for which the medication is being taken. If this is not possible, the authors should provide a good rationale why the ATP III criteria were used instead of the adapted ATP III criteria that are currently most widely used.

Other points
1. For clarity, the authors should write in full ‘metabolic syndrome’ in the background section also (not only in the abstract) before they use the abbreviation.
2. The authors cite a prevalence rate reported in the study of Kato et al, which only included 48 patients. They should base the prevalence rate they report on the largest studies, being the CATIE study (which they cite), the study by De Hert et al (430 patients) and Cohn et al (240 patients). In these studies, prevalence rates for the metabolic syndrome are somewhat lower (30 to 40%). Furthermore, when citing studies, they should clearly indicate which definitions were used.
3. Not all patients that fulfill the IDF criteria also fulfill the ATP III criteria, and vice versa. Given the low numbers in the study, it would be clarifying if the authors would describe how many patients met both criteria, and how many met criteria for IDF or ATP only.
4. The authors should describe the characteristics of those patients that were lost to follow-up versus those that remained in the study, as this could have influenced the data. For example, one could argue that those that remained in the study, were more likely to continue their antipsychotic treatment and thus develop MetS. Were there large or significant differences?

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

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

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests