Second-generation antipsychotic drugs and extrapyramidal side effects: a systematic review and meta-analysis of head-to-head comparisons.

Abstract:

While all second-generation antipsychotics (SGAs) are promoted for having a low risk of extrapyramidal side effects (EPS), clinical observations suggest differences between the various agents. Nevertheless, this question has never been examined in a systematic review and meta-analysis of head-to-head comparisons. We searched the register of the Cochrane schizophrenia group (last search May 2007), supplemented by MEDLINE (last search July 2009) for randomized, blinded studies comparing the following SGAs in the treatment of schizophrenia or related disorders: amisulpride, aripiprazole, clozapine, olanzapine, quetiapine, risperidone, sertindole, ziprasidone, and zotepine. At least 3 reviewers extracted the data independently. The primary outcome was "use of antiparkinson medication." The results were combined in a meta-analysis. We included 54 studies with 116 arms. Risperidone was associated with more use of antiparkinson medication than clozapine, olanzapine, quetiapine, and ziprasidone. Ziprasidone showed more use of antiparkinson medication than olanzapine and quetiapine and zotepine more than clozapine. There was no significant difference between amisulpride and its comparators (olanzapine, risperidone, or ziprasidone). Quetiapine showed significantly less use of antiparkinson medication than the 3 other SGAs it was compared with (olanzapine,
risperidone, and ziprasidone). Scale-derived data (Barnes Akathisia Scale and Simpson Angus Scale) were limited. Our meta-analysis demonstrates that there are differences between the SGAs in their ability to induce EPS that clinicians consider warrant treatment with antimuscarinic drugs. Even though the differences were relatively small, they might be important for individual patients and should be taken into account in drug choice.