Review: antipsychotics do not increase weight in women with anorexia nervosa

QUESTION

Question: How effective are antipsychotics in people with anorexia nervosa?

Outcomes: Body weight or body mass index (BMI) measured either by using the standardised mean difference (SMD) of the change in BMI from baseline to endpoint, the endpoint BMI or daily weight change. Secondary outcomes: anorexia nervosa symptoms (pooled Yale-Brown-Cornell Eating Disorder Scale, Eating Disorder Inventory, Anorectic Behaviour Scale, Body Shape Questionnaire and Eating Disorder Examination); depressive symptoms (pooled scores from Beck Depression Inventory, Personality Assessment Inventory Depression subscore and Center for Epidemiologic Studies Depression Scale) and anxiety (pooled scores from Beck Anxiety Inventory, Personality Assessment Inventory Questionnaire, Multidimensional Anxiety Scale for Children; side effects (akathisia, drowsiness/sedation).

METHODS

Design: Systematic review with meta-analysis.

Data sources: Cochrane Library Databases, PsycINFO and PubMed were searched from inception until March 2012 for randomised controlled trials (RCTs). Reference lists of review articles and identified studies were hand searched.

Study selection and analysis: Two reviewers appraised the studies and selected RCTs comparing antipsychotics with placebo or usual care in people with anorexia nervosa. There were no language restrictions. Two reviewers rated study quality and extracted data. Authors were contacted to obtain missing data. Random effect meta-analyses were conducted using RevMan software. Meta-analyses were performed only on outcomes which were reported in at least three studies and were based on intention-to-treat. Heterogeneity was investigated using the I^2 statistic.

MAIN RESULTS

Eight RCTs were identified (221 participants, mean age 22.5 years, 99% women). Participants were randomised to placebo (n=9), quetiapine (n=15), olanzapine (n=54), risperidone (n=18), pimozide (n=8), sulpiride (n=9) or usual care (n=18). There was no significant difference between antipsychotics and placebo or usual care on BMI/body weight (7 RCTs, n=195; SMD +0.27, 95% CI −0.01 to +0.56, p=0.67; I^2=0%). There was no significant difference between groups for anorexia symptoms (5 RCTs, n=114; SMD −0.27, 95% CI −0.81 to +0.27, p=0.32; I^2=49%). There was no significant difference between groups for depressive or anxiety symptoms (depressive symptoms: 4 RCTs, n=103, SMD −0.39, 95% CI −0.84 to +0.05, p=0.08; anxiety symptoms: 4 RCTs, n=121; SMD −0.17, 95% CI −0.71 to +0.36, p=0.08). Antipsychotics increased drowsiness compared with usual care (5 RCTs, n=129; RR 3.69, 95% CI 1.34 to 9.95, p=0.01) but there was no difference in akathisia between groups (3 RCTs, n=76, RR 3.77, 95% CI 0.70 to 20.3, p=0.12). There were no significant differences between groups in all cause discontinuation (7 RCTs, n=181; RR 0.94, 95% CI 0.53 to 1.67, p=0.54).

CONCLUSIONS

Antipsychotics do not increase weight gain or reduce anorexia symptoms in women with anorexia nervosa.

ABSTRACTED FROM

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COMMENTARY

The authors are to be commended on conducting the first meta-analysis of antipsychotic medications in the management of the enigmatic and potentially life-threatening condition, anorexia nervosa (AN). One published randomised controlled trial comparing olanzapine with chlorpromazine was omitted,[1] presumably on the grounds that the comparator was neither placebo nor usual care.

Seven to 12 weeks is indeed a short time in which to find substantial changes in the core psychopathology of AN. The small sample sizes in the reviewed trials also limit statistical power to evaluate the outcome of differential medication doses. Weight gain, an essential but not sufficient component of recovery in AN, is affected by the sheer caloric requirement , and sustained reduced intake in weight-recovering individuals.[2] In one of the studies cited by Kishi and colleagues, the methodology of this study,[3] with its endpoint of time to achieve target body mass index (BMI), rather than merely group differences in BMI, is perhaps a more clinically relevant approach for future studies. Only three of the eight studies reported illness duration, an area rightly identified for further study, thereby precluding comment on whether there may be a 'critical' period for medication intervention.

At this juncture, the authors' conclusions about the lack of meta-analytical support for antipsychotic medication for treating core symptomatology and weight gain in AN seems justified. Hence, their utility in managing anything other than psychiatric comorbidity is not supported. However, we concur with the recommendation that larger trials of antipsychotics are required, tempered by the well-recognised difficulty in recruiting AN participants. Sadly, beyond Maudsley family-based treatment in adolescents,[4] the armamentarium of evidence-based treatments in AN remains limited.

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