

Low Dose Quetiapine for Insomnia is Associated with Increased Weight and BMI

The following is an extract of:

Cates ME, Jackson CW, Feldman JM, Stimmel AE, Woolley TW. Metabolic Consequences of Using Low-Dose Quetiapine for Insomnia in Psychiatric Patients. *Community Ment Health J* 2009;45:251-254.

Bottom Line:

- Quetiapine <200 mg/day at bedtime for sleep was associated with an average weight gain of 4.9 lbs ($p=0.037$), and average BMI increase of 0.8 points ($p=0.048$), after an average exposure of 11.1 months.
- Two-thirds of the study sample gained weight after initiation of low dose quetiapine therapy, of which 60.7% ($n=17$) gained between 1-10 lbs; 4(14.3%) gained 11-20 lbs; and 7(25%) gained more than 20 lbs.

This is the first study to document changes in metabolic parameters for consumers prescribed low dose quetiapine with the express purpose of treating insomnia in a psychiatric population. The authors looked at changes in weight, body mass index (BMI) and waist circumference among consumers initiating low dose quetiapine therapy. They found that low dose quetiapine was significantly associated with weight gain and increased BMI.

Study Background

Insomnia is frequently comorbid with psychiatric disorders. Quetiapine, which is not FDA approved for the treatment of insomnia, has sedating properties and is often used at low dosages to treat the insomnia associated with psychiatric conditions. However, quetiapine is associated with metabolic abnormalities, and is considered intermediate risk for cardiometabolic abnormalities.¹ Clinicians may believe that using low dose quetiapine has low or no risk, but the impact of low dose quetiapine on metabolic outcomes has not been established.

Study Details

This was a retrospective chart review of consumers who attended the psychopharmacology clinic at the University of Alabama (UAB) Community Psychiatry Program between September 2007 to November 2007. Inclusion criteria were: aged 19-65 years; initiated on low-dose (≤ 200 mg) quetiapine at bedtime between January 2005 and July 2007 for the explicit treatment of insomnia; and metabolic parameters recorded at baseline and follow up visits. Information extracted from the charts included demographic information; other psychotropic medications at the time of quetiapine initiation; weight, BMI and waist circumference at each clinic visit; and initial and successive quetiapine doses. Primary outcome measures included endpoint vs. baseline changes in weight, BMI and waist circumference.

Results and Limitations

Of 631 consumers with psychopharmacology appointments between September and November of 2007, 43 individuals fit the inclusion criteria and were available for analysis. The mean age of patients was 44.9 ± 11.0 years. In this sample 24 (56%) were women, and 19 (44%) men; 25 (58%) were African American, 15 (35%) Caucasian, and 3 (7%) other races. Psychotic disorders were most common ($n=23$, 53.5%), followed by depressive disorder ($n=10$, 23.3%),

¹ Consensus Development Conference on Antipsychotic Drugs and Obesity and Diabetes. *Diabetes Care* 2004;27(2):596-601.

bipolar disorder (n=7, 16.3%), anxiety disorders (n=2, 4.7%), and mood disorders NOS (n=1, 2.3%). With a mean BMI of 31, most (81.4%) were overweight at baseline.

At the initiation of quetiapine therapy, all subjects were receiving at least one other psychotropic. Of those receiving concomitant psychotropics, 69.8% (n=30) received an antidepressant; 51.2% (n=22) received an SGA; 44.2% (n=19) received a mood stabilizer/anticonvulsant; 20.9% (n=9) received an anti-EPS medication; and 9.3% (n=4) received an anxiolytic. Of those receiving an SGA, 11 received risperidone; 6 received aripiprazole; 3 received ziprasidone; and 2 received olanzapine.

The starting dose of quetiapine most commonly prescribed for sleep was 100mg at bedtime (n=30, 70%). The mean starting dose was 109.3 ± 47.3 mg, with a mean final dose of $120.3 \text{ mg} \pm 58.6$ mg. The mean duration of quetiapine therapy was 11.1 ± 8.2 months. Two-thirds (n=28) of individuals prescribed low dose quetiapine for sleep gained weight during quetiapine therapy, of which 60.7% (n=17) gained between 1-10 lbs; 4(14.3%) gained 11-20 lbs; and 7(25%) gained more than 20 lbs. On average, weight increased by 4.9 lbs ($p=0.037$) and BMI increased by 0.8 points ($p=0.048$). Waist circumference increased by an average of 0.4 inches, but this did not reach significance. Men had greater increases in weight ($10.5 \text{ lb} \pm 15.6$) and BMI (1.3 points ± 2.1) than women ($0.4 \text{ lb} \pm 12.4$).

There were no significant differences in outcomes when groups were stratified by BMI, age, psychiatric diagnosis, or concomitant medication regimen (risperidone, aripiprazole, valproate, gabapentin, paroxetine and trazodone).

The authors note the following limitations: the retrospective nature of the study, the lack of a control group and small sample size (n=43).

Clinical Implications

Patients who were given low dose quetiapine for complaints of insomnia experienced significant increases in weight and BMI despite low doses prescribed. This is consistent with other reports suggesting that quetiapine induced weight gain may not be dose dependent.² The clinical belief that low doses are protective against cardiometabolic effects is not supported for quetiapine. Most subjects were overweight or obese at the initiation of quetiapine therapy, accentuating the importance of considering additional weight gain when prescribing add-on medications for insomnia. The authors stress the importance of assessing the overall risk versus benefit ratio when prescribing quetiapine for insomnia, especially given the existence of many other non antipsychotic and non-pharmacologic treatment options.

Drs Cates, Jackson, Feldman, Stimmel and Woolley do not report any potential conflicts of interest.

² Brecher M, Leong RW, Stening G, et al. Quetiapine and long-term weight change: a comprehensive data review of patients with schizophrenia. *The Journal of Clinical Psychiatry* 2007;68(4):597-603.