

Ranitidine Reduces Olanzapine-Induced Weight-Gain

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Abstract : Pronounced weight gain is a known side effect of the atypical antipsychotic agent olanzapine. In contrast, certain H₂-blockers are reported to have an inhibitory effect on weight gain. However, there are yet to be any studies that confirm whether or not ranitidine can inhibit the weight gain induced by olanzapine. In an experiment to ascertain whether or not H₂-blocker ranitidine has an inhibitory effect on weight gain induced by olanzapine, we explored differences in the weight changes between two groups of patients taking olanzapine, one group given ranitidine, and the other not. We also investigated difference in the effect of ranitidine on baseline BMI.

First, we instituted an 8-week observation period for schizophrenia patients taking olanzapine. Patients in the ranitidine group were assigned to take ranitidine 300 mg/day. Patients with BMI ≥ 25.0 were designated the obese group and those with a BMI <25.0 the non-obese group.

We obtained informed consent from 66 patients, of which 34 were assigned to the non-ranitidine group and 32 to the ranitidine group. A total of 50 patients were eligible for analysis after 8 weeks of treatment, 23 in the ranitidine group and 27 in the non-ranitidine group. An inhibitory effect on weight gain was evident in the ranitidine group, with a weight gain of 3.1 ± 3.3 kg in the non-ranitidine group versus only 1.0 ± 2.8 kg in the ranitidine group. Analysis of the inhibitory effect on weight gain by baseline BMI showed that ranitidine clearly exerted an inhibitory effect on weight gain in the obese group, but not in the non-obese group. Furthermore, many patients in the non-ranitidine group reported increased appetite.

This research demonstrated that ranitidine can significantly inhibit weight gain induced by olanzapine therapy. Furthermore, this inhibitory effect on weight gain was manifested in obese patients, but not in non-obese patients.

Key words : Olanzapine, Weight gain, Ranitidine, Inhibitory effect on weight gain