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Olanzapine treatment for patients with anorexia nervosa

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Letter to the Editors

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Dear Editors,

With particular interest, we have read the article “Salience Network and Olanzapine in Schizophrenia: Implications for Treatment in Anorexia Nervosa” by Stip and Lungu [1], published in *The Canadian Journal of Psychiatry*, in which neuroimaging evidence indicated a link between weight gain associated with antipsychotic treatment and dysfunction in the salience network on the basis of data from patients with schizophrenia treated with olanzapine.

The findings of Stip and Lungu [1] are supported by a recent meta-analysis of antipsychotics in anorexia nervosa [2], which revealed that olanzapine led to increased weight gain, compared with risperidone, quetiapine or placebo in anorexia nervosa. The current discussion of the use of antipsychotics and specifically olanzapine in patients with anorexia nervosa is important as olanzapine is not currently recommended for the treatment of anorexia nervosa, but is often used in inpatient treatment for patients not gaining sufficient weight in the first weeks of admission.

In the context of an audit on a specialized ward for eating disorders at the Bethlem Royal Hospital in Bromley (London, UK) authorized by the South London and Maudsley National Health Service Foundation Trust, we performed a chart review of 12 inpatients (18-60 years old; body mass index (BMI) 11.0-17.3 kg/m²), who received olanzapine for 8 weeks according to clinical need in addition to the standard clinical care provided during inpatient treatment for anorexia nervosa between 2014 and 2016. During this period, patients showed significant weight gain (mean \pm standard deviation: 4.59 \pm 3.42 kg, 2-tailed t-test: P=0.001; mean BMI difference: 1.84 \pm 1.04 kg/m², 2-tailed t-test: P<0.001). We also measured electrolytes, blood cell count and liver enzymes. Of these laboratory parameters, only gamma-glutamyl transpeptidase showed a significant increase (mean difference: 3.91 \pm 4.89 IU/l, 2-tailed t-test: P<0.024), although this was not clinically relevant. Taken together, this chart review showed an increase in body weight of ~4.6 kg in patients with anorexia nervosa without significant previous weight gain, with the majority of laboratory parameters remaining unaffected.

In summary, data from the randomized controlled clinical trials in the meta-analysis mentioned above [2] in addition to our own clinical data show that olanzapine might be a promising treatment option for patients with anorexia nervosa. In addition to its action on the salience network investigated by Stip and Lungu [1], the antihistaminergic effect of

olanzapine at the hypothalamic histamine H1 receptor [3] should be highlighted as a further important cause of weight gain.

In conclusion, the results of the study by Stip and Lungu [1], describing data derived from patients with schizophrenia, have a clinical impact on patients with treatment-resistant anorexia nervosa, which indicates the advantages of cross-diagnostic scientific approaches and interdisciplinary research.

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