Dear Editor,

It has been suggested that glutamate deregulation may be involved in the neuropathology of schizophrenia (SZ), mainly through N-methyl-d-aspartate receptor (NMDA) dysfunction. Memantine, a drug approved by the FDA for the treatment of moderate to severe Alzheimer’s disease, acts as weak non-selective NMDA receptor antagonist. Our group conducted the first randomized placebo-controlled clinical trial with memantine adjunctive to clozapine for the treatment-refractory SZ. To our surprise, the improvement was not only in negative symptoms, and we have also found improvement in positive symptoms and cognition. We report the results of Amantadine, a memantine’s derivate, as adjunctive therapy to antipsychotics in four cases of DSM-IV SZ. The four subjects were clinically stabilized, but presented with a pronounced motor retardation, blunted affect, emotional withdrawal and anxiety, scoring at least 3 for each of these items at The Brief Psychiatric Rating Scale (BPRS). The subjects gave informed consent for experimental use of amantadine with the dose increased up to 400mg/day over 6 weeks. Clinical response was assessed using BPRS at baseline and at sixth week and Clinical Global Impression Improvement scale (CGI-I) at the sixth week considering: -3 = very much worse, -2 = much worse,
-1 = slightly worse, 0 = unchanged, +1 = slightly improved, +2 = much improved, +3 = very much improved. The four case series are described in Table 1. These cases illustrate a clinical response to negative symptoms beyond positive symptoms improvement. Some lines of evidence suggest that amantadine would be helpful for the treatment of SZ positive, negative, and cognitive symptom domains. It is capable to increase monoaminergic tonus, through dopamine, noradrenaline and serotonin increase in amygdala and hippocampus conferring an antidepressant profile. Its direct modulation of glutamate, through partial agonism of NMDA receptors has an important role on cognition, learning and new memories recall, contributing for Brain-derived neurotrophic factor (BDNF) cerebral increase and neuronal membrane stabilization. There is evidence that oxidative stress is increased in patients with SZ. As previously reported, memantine may be considered a neuroprotective drug, by increasing BDNF levels and preventing dopamine deficit. Thus, amantadine may act like memantine by chronically reducing neuronal oxidative stress of treated patients, decreasing aggression to neurons and neuronal death. Our findings need to be replicated in a larger sample and over a longer follow-up in order to better evaluate the potential benefits of this adjunctive treatment. However, this report adds to the evidence base supporting a key role of glutamate in the pathophysiology of SZ.

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Dear Editor,

The United Nations estimate that there are 100 million children living in the streets around the world.1 Many of them are victims of early emotional stress (EES), such as physical and sexual abuse, and severe socioeconomic problems, that may increase the prevalence of psychiatric disorders (PD).2 However, there is a gap between the needs of this population and the health services available, which tend to focus on substance use disorders (SUD) and underestimate other mental problems.

The aim of this letter was to report the prevalence of PD in a sample of Brazilian children and adolescents living under conditions of social vulnerability and a history of EES. From June 2007 to September 2009, 351 children and adolescents were referred to The Equilibrium Project (TEP) by shelters, Children’s Court, and Guardianship council. TEP’s target population is children and adolescents that are separated from their family because they had run away from home or were sent to foster centers by the Justice System and, sometimes, their siblings who are still at home. They underwent a careful clinical psychiatric evaluation. Participants were interviewed and observed alone. In some cases (when available), they were also observed interacting with their parents, legal guardians, or caregivers. Demographic and clinical information were obtained by a semi-structured psychiatric interview, which includes detailed sociodemographic transmission in the rat striatum after treatment with the NMDA receptor antagonist amantadine. Brain Res. 2002;949(1-2):32-41.
