



Letters to the Editor

The benefits of the concomitant use of antidepressants and acetyl-L-carnitine in the treatment of moderate depression



Acetyl-L-carnitine (ALC) is a potential antidepressant with a novel mechanism of action related to its diverse functions in neural plasticity. In fact, a preliminary study has reported the effectiveness of ALC in the treatment of senile depression through the normalization of phosphomonoester levels in the prefrontal cortex region (Pettegrew et al., 2002). Here, we report the benefits of the concomitant use of antidepressants and acetyl-L-carnitine in the treatment of two moderate depression patients. Effectiveness was assessed using the Montgomery-Asberg Depression Rating Scale (MADRS) and the Clinical Global Impression-Severity scale (CGI-S). Two patients were no active suicidality. Informed consent was obtained and the patients' anonymity has been preserved.

The first 41-year-old female outpatient with a diagnosis of moderate depression, who had a MADRS score of 29 points, began treatment with 5 mg of escitalopram. ALC was co-administered at the dose of 2 g four weeks later, and the medications were taken concomitantly for eight weeks. 12 weeks after escitalopram 5 mg treatment, the following characteristics improved: MADRS total score (29 to 4) and CGI-S (4 to 1).

The second 64-year-old female outpatient with a diagnosis of moderate depression, who had a MADRS score of 23 points, began treatment with 25 mg of sulpiride. ALC was co-administered at the dose of 1 g three weeks later, and the medications were taken concomitantly for nine weeks. 12 weeks after sulpiride 25 mg treatment, the following characteristics improved: MADRS total score (23 to 4) and CGI-S (4 to 1).

Conflicts of interest

Dr Suzuki has received honoraria from Janssen, Otsuka, Shionogi, Yoshitomyakuhin, MSD, and Meiji Seika. Dr Hibino has received honoraria from Janssen, Eli Lilly, Otsuka, and GlaxoSmithKline. Dr Inoue received honoraria from Eisai, Novartis, and Meiji Seika. Dr Mikami received research supports from Mitsubishi Tanabe, Otsuka, Shionogi, and honoraria from Otsuka, Mitsubishi Tanabe, and Eli Lilly.

In this study, two patients with depression were prescribed ALC with a low dose of antidepressants, concomitantly. This combination was effective in improving depressive symptoms, and no adverse events were noted. In previous studies, it has been proven that treatment regimens of ALC 2 g combined with mianserin, or ALC 1.5 g alone, are both more effective treatments than placebo or mianserin alone in the treatment of depression symptoms in the elderly (Wang et al., 2014). Previous studies have reported that ALC with a novel mechanism of action may potentially be a valid and tolerable treatment option for patients with depression. This is particularly true among the elderly, and patients with comorbidities who are vulnerable to adverse events caused by antidepressants (Wang et al., 2014). Therefore, these findings suggest that low-dose antidepressants in combination with ALC may be an effective and easily tolerated treatment option for depression.

Conflicts of interest

Dr Suzuki has received honoraria from Janssen, Otsuka, Shionogi, Yoshitomyakuhin, MSD, and Meiji Seika. Dr Hibino has received honoraria from Janssen, Eli Lilly, Otsuka, and GlaxoSmithKline. Dr Inoue received honoraria from Eisai, Novartis, and Meiji Seika. Dr Mikami received research supports from Mitsubishi Tanabe, Otsuka, Shionogi, and honoraria from Otsuka, Mitsubishi Tanabe, and Eli Lilly, and a consulting fee from Otsuka.

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Hidenobu Suzuki*

Department of Psychiatry, Suzuki Clinic, Tokyo 168-0065, Japan

E-mail address: suzuihiromarket@yahoo.co.jp

Hiroyuki Hibino

Department of Psychiatry, Fukui Kinen Hospital, Kanagawa 238-0115, Japan

Yuichi Inoue

Department of Psychiatry, Shakomae Kokorono Clinic, Tokyo 116-0011, Japan

Katsunaka Mikami

Department of Psychiatry, Tokai University School of Medicine, Kanagawa 259-1193, Japan

* Corresponding author at: Department of Psychiatry, Suzuki Clinic 3–34–16 Hamadayama, Suginami, Tokyo, 168–0065, Japan.