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## Ibogaine microdosing in a patient with bipolar depression: a case report

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Ibogaine is a naturally occurring psychoactive alkaloid and belongs to the class of atypical psychedelics. It has been used to treat substance dependence and, experimentally, for other mental disorders, such as depression.<sup>1-3</sup> The most commonly used dose is between 15 and 20 mg/kg.<sup>4</sup> Recent studies reported on the effects of microdosing classic psychedelics, i.e., administration of less than 20% of the usual total dose in a semi-regular schedule.<sup>5</sup> Although there is a lack of robust research on ibogaine microdosing for psychiatric disorders, we report this practice in a patient with bipolar depression as a possibly innovative treatment alternative.

A 47-year-old woman with a 20-year history of bipolar disorder type II presented with an episode of severe depression of moderate severity (ICD-10 F31.4). At baseline assessment, the patient complained of sadness, low self-esteem, hopelessness, anxiety, difficulty in social interaction, significant weight loss, anorexia, prostration, insomnia, negativistic cognition, and difficulty working, which responded poorly to escitalopram 15 mg/day. She was referred for ibogaine microdose treatment at a private clinic upon her request. Two capsules of high-purity ibogaine hydrochloride obtained from a Canadian commercial vendor, containing 4 mg of ibogaine each (approximately 1% of a full conventional single dose), were administered

twice a day for 60 days. The patient decided to taper off her medications (mood stabilizers and escitalopram) on her own. Alprazolam (2 mg/day) was continued.

After 15 days, we observed overall improvement compared to the initial assessment, as well as some functional recovery. She reported increased mental clarity, organized thinking, and positive prospects regarding the future. After 43 days, she reported a boosted appetite and initiative to engage in professional activities. Even 30 days after discontinuation of ibogaine (day 60), she had sustained improvement, which persisted through day 90. She resumed her routines and restored personal and social contacts. No manic switch was evident at any point during the follow-up period, and symptomatic improvement was clearly demonstrated in rating scales (Figure 1). After 15 days of treatment, BDI, BAI, and BHS scores reduced 35%, 39%, 60%, respectively; after 43 days, 85%, 52%, and 70% respectively; and, after 90 days, 90%, 56%, and 100% respectively compared to baseline. Daily ibogaine microdosing was associated with improvement of depressive and anxiety symptoms, but safety aspects must be considered. Cardiovascular and vestibular toxicity have been reported.<sup>2</sup>

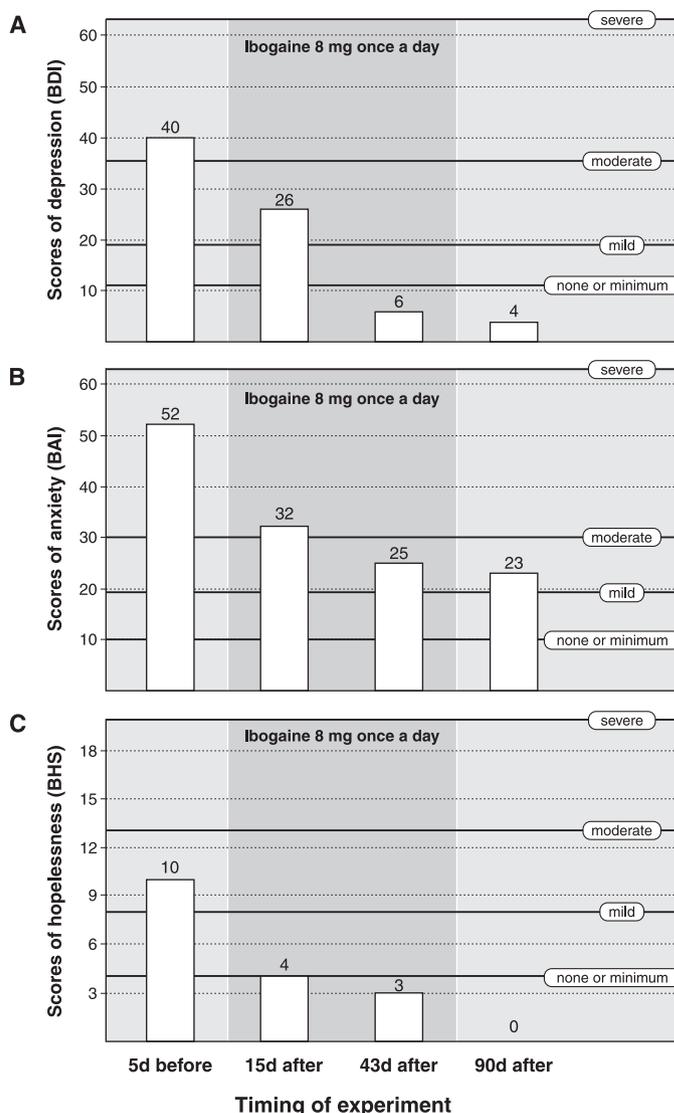
One study related the use of ibogaine and other psychedelics to a significant reduction in symptoms of mental disorders, including depressive disorders.<sup>3</sup> Although the mechanism of action of ibogaine remains unclear, reports in the literature associate its effects with changes in prefrontal limbic circuits, triggering neuroplastic adaptations, and brain neurotrophic factors (which have raised interest in their own right as a potentially effective treatment for depression and other psychiatric disorders).<sup>2</sup> Hypothetically, ibogaine may exert its clinical antidepressant effect as a result of combined direct pharmacological action and a consciousness-expanding experience. A two-stage phase II randomized clinical trial to test ibogaine hydrochloride and the ibogaine analog 18-methoxycoronaridine for treatment of psychiatric disorders has been approved. Further trials are warranted to investigate the putative antidepressant effect of ibogaine microdosing.

Maria Helha **Fernandes-Nascimento**,<sup>1</sup> Karine **Viana-Ferreira**,<sup>2</sup> Bruno Daniel Rasmussen **Chaves**,<sup>3</sup> André **Brooking Negrão**,<sup>4</sup> Yuan-Pang **Wang**<sup>1</sup>

<sup>1</sup>Instituto de Psiquiatria (LIM-23), Hospital das Clínicas, Faculdade de Medicina da Universidade de São Paulo (FMUSP), São Paulo, SP, Brazil. <sup>2</sup>Programa de Pós-Graduação em Fisiopatologia Experimental, Departamento de Patologia, FMUSP, São Paulo, SP, Brazil. <sup>3</sup>Independent researcher.

<sup>4</sup>Grupo Interdisciplinar de Estudos sobre Álcool e Drogas, Departamento e Instituto de Psiquiatria, Hospital das Clínicas, FMUSP, São Paulo, SP, Brazil. <sup>5</sup>LIM-23, Hospital das Clínicas, FMUSP, São Paulo, SP, Brazil.

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**Figure 1** Histogram of scores of the Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), and Beck Hopelessness Scale (BHS) over four timepoints in a patient taking ibogaine. Scores are rated as follows: BDI: none or minimum = 0-11; mild = 12-19; moderate = 20-35; severe = 36-63; BAI: none or minimum = 0-10; mild = 11-19; moderate = 20-30; severe = 31-63; BHS: none or minimum = 0-4; mild = 5-8; moderate = 9-13; severe = 14-20.

**Disclosure**

BDRC is a medical consultant for Phytostan do Brasil Pharmaceuticals. The other authors report no conflicts of interest.

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