Tribulus terrestris Linne produces antidepressant-like effects in the forced swimming test and tail suspension test in mice

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Depression is a severe disorder including disturbances of emotional, cognitive, autonomic and endocrine functions. Moreover, depression is a difficult disease to be cured because it may be chronicity, relapse, and recurrence, resulting in a high suicide rate. Tribulus terrestris Linne is a member of the Zygophyllaceae family. Extracts from this plant have been used traditionally in treating a variety of diseases including hypertension and coronary heart disease, ocular inflammation and infertility. In the present study, we want to identify the effects of 70% EtOH extracts of Tribulus terrestris L. (EETT), a traditional herb, on the depressive behaviors in mice using forced swimming test (FST) and tail suspension test (TST). EETT was treated 1h prior to the forced swimming test and tail suspension test (50, 100, 200, and 400 mg/kg, p.o.). Single treatments of EETT (100 and 200 mg/kg, p.o., p < 0.05) significantly reduced the duration of immobility in FST in a dose-dependent manner with a profile comparable to that observed in imipramine, a classical antidepressant agent. In addition, for the subchronic treatment, EETT was treated at several dosage regimens for 2 weeks. EETT (100 and 200 mg/kg, p.o., p < 0.05) also reduced the duration of immobility time in FST. Moreover, there were no changes in the locomotor activity in any group compared with the saline controls. Therefore, the present studies suggest that *Tribulus terrestris* ameliorates the depressive behaviors in mice.