Antidepressant-like effect of hyperbaric oxygen treatment in forced-swimming test in rats.

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The present study was undertaken to assess the antidepressant-like activity of hyperbaric oxygen (HBO) treatment and also to investigate whether in the forced-swimming test HBO treatment interacts with the antidepressant effects of fluoxetine, a selective serotonin reuptake inhibitor, and imipramine, which is mainly a noradrenaline reuptake inhibitor. HBO treatment (at 2.4 atmospheres absolute [ATA] for 60 min) significantly reduced the immobility time in this test; in other words, it displayed antidepressant-like activity. The coadministration of HBO with fluoxetine (5 mg/kg) or imipramine (5 mg/kg) at their ineffective doses produced greater inhibition of immobility time compared with HBO alone. In conclusion, HBO treatment might be an alternative approach to antidepressant therapy, alone or in combination with antidepressant drugs. (c) 2005 Prous Science. All rights reserved.

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