Antidepressant-like effect of methanolic extract of Punica granatum (pomegranate) in mice model of depression

Abstract

Punica granatum L. (pomegranate) is commonly known for its traditional use as a food supplement and for its medicinal values. P. granatum methanolic pulp and peel extract were investigated for its antidepressant activities on mice model of depression using tail suspension test (TST) and forced swimming test (FST). P. granatum pulp and peel extract were administered at doses of 25 and 50 mg/kg intraperitoneally, respectively while fluoxetine (20 mg/kg) was administered intraperitoneally as the standard drug. The results showed that P. granatum pulp extract at 25 mg/kg significantly exhibited antidepressant activity in both TST and FST which able to reduce the immobility time, similar to fluoxetine, a recognized antidepressant drug. It is concluded that P. granatum methanolic extract has the ability as antidepressant-like agent. Further research is required to investigate the exact pharmacological mechanism of action of this fruit.

Keyword: Punica granatum; Antidepressant; Tail suspension test; Forced swimming test