

عنوان مقاله:

Anti-depressant Activity of Hydroalcoholic Extract of *Asperula odorata* L. in Mice Running title: Anti-depression effect of *Asperula odorata* L

محل انتشار:

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خلاصه مقاله:

Background: The relationship between the treatment of depression and plant-derived substances (e.g., flavonoids, coumarin, and Scopoletin) has been demonstrated through interference with the monoamine system. The present study was planned to evaluate the anti-depressant effects and active ingredients of *Asperula odorata* L. plant through behavioral tests in mice. Material and methods: In this experimental study, ۳۵ male Syrian mice weighing ۳۰-۴۰ g were examined in five groups (n=۷) as follow: received oral distilled water gavage (control), ۱۰ mg/kg of fluoxetine solution gavage (reference standard), ۱۰, ۵, and ۲.۵ mg/kg of *A. odorata* L. extract gavage (treatment groups). After one week, all behavioral tests, including tail suspension test (TST), forced swimming test (FST), open field test (OFT), elevated plus maze test (EPMT), and fractionation tests were performed each morning for ۴-۶ h within five days. Results: The hydroalcoholic extract of *A. odorata* contained phenolic and flavonoid substances (Shinoda test confirmed flavonoid family). Administration of extract (۱۰ and ۵ mg/kg doses) versus fluoxetine (۱۰ mg/kg dose) reduced the immobility of animals in both FST and TST ($P < 0.05$). At the OFT, the administered extract increased the number of central square entries of animals with higher mobility ($P < 0.05$). At a ۱۰ mg/kg dose, the active flavonoid ingredients increased the mice's incline to enter and spent more time within no wall parts of EPMT ($P < 0.05$). Conclusion: Our study suggests that the hydroalcoholic extract of *A. odorata* L. could have significant anti-depressant activity

کلمات کلیدی:

Anti-Depressant; Flavonoid; *Asperula Odorata* L.; Monoamine Oxidase; Mice

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