

عنوان مقاله:

Assessment of membrane stability, central nervous system depressant, and gut motility effects of Lablab purpureus seeds

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خلاصه مقاله:

Introduction: Lablab purpureus, under the family of Fabaceae, is a plant with various pharmacological activities. The present study was aimed to investigate the phytoconstituents, membrane stabilizing activity, central nervous system (CNS) depressant potential, and gastrointestinal (GI) motility of the methanol extract of L. purpureus seeds (MELPS). **Methods:** The methanol plant extract was screened for different phytochemical groups. Mice were classified into four groups for in vivo activities. Group-I was designated as negative control and received distilled water (10 mL/kg body weight); group-II served as positive control and received diazepam (1 mg/kg body weight). Group-III and group-IV both were experimental groups and received plant extract at 200 and 400 mg/kg body weight, respectively. **Results:** Alkaloids, carbohydrates, saponins, glycosides, tannins, phenols, flavonoids, and proteins were found after phytochemical analysis. On hypotonic solution-induced hemolysis of erythrocyte membrane, MELPS₉ (9 mg/mL) resulted in the highest percentage of inhibition (60.51 ± 0.889), and on heat-induced hemolysis, MELPS₉ (9 mg/mL) resulted in the highest percentage of inhibition (33.97 ± 0.21). In the case of the CNS depressant potential experiment, mice that received a sample at a dose of 400 mg/kg body weight showed the highest result (54.40 ± 4.51) compared with the positive control (14.2 ± 3.70) ($P < 0.001$). Similarly, 400 mg/kg dose sample exhibited the highest percentage of inhibition (60.51 ± 0.889) of hemolysis and GI motility (22.26%). **Conclusion:** It can be concluded that the MELPS has potential membrane stability, CNS depressant, and antimotility effects.

کلمات کلیدی:

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