STUDY ON THE LEAD-EXCRETION FUNCTION OF THE MUNG BEAN COMPOUND ORAL SOLUTION
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Abstracts: Aims: The mung bean compound oral solution is mainly composed of the enzymatic hydrolyzate liquor of mung beans. Calcium gluconate, vitamin C, taurine, zinc, honey and other ingredients are added in it. This animal experiment studies the lead elimination effectiveness of the mung bean compound oral solution on mice with lead poisoning. Methods: We chose 50 Kunming mice with weights ranging from 18 to 23g, randomly divided them into 5 groups for blank comparison, model comparison, high dose, medium dose and low dose, as well, for the mung bean compound oral solution (15.0ml/kg.bw, 5.0 ml/kg.bw and 2.5 ml/kg.bw individually). The experimental model of lead-poisoning mice is established through their freely drink the aqua solution of acetic acid lead. To high dose, medium dose and low dose groups, the mung bean compound oral solutions are injected into the stomachs for 30 days. Then, kill the animals by breaking necks, then picked eyes, collected blood, liver and bone samples for the determination of lead concentrations by atomic absorption spectrum. Results: The high dose mung bean compound oral solution (15.0ml/kg.bw) can increase lead-excretion, decrease lead concentration in the blood and liver of lead-poisoning mouse (P<0.01, P<0.05). There are no significant effects for each dose on the lead concentrations in the bone and the weight increasing of mouse. Conclusion: The mung bean compound oral solution is effective to promoting lead-excretion on lead-poisoning mice. The effectiveness of lead-excretion is due to the interactions between lead and the mung bean compound oral solution, polypeptide, vitamin C, calcium gluconate, tannin and trace element zinc respectively. Key Words: Mung Bean Compound oral solution, Mung bean, Lead-poisoning, Lead-excretion, Mouse test