

Abstract:

Introduction and goal: Immune defects occur due to many pathogens. Immunodeficiency-related immune disorders due to toxic heavy metals such as cadmium are among the factors that may impair the immune system. The aim of this study was to investigate the effect of Golden Shellfish extract on immune deficiency induced by cadmium intoxication in rats.

Method: In this study, to evaluate the effect of Golden Mussel extract on immune deficiency induced by cadmium intoxication, 40 rats were divided into five groups of 8 including control group, cadmium group, cadmium group, poisoned group and treated with booster. The immune system, the poisoned and alcoholic extracts of the fungal group were divided, and the toxic and aqueous extracts of the fungal group were divided. Samples were then sampled and evaluated for the effect of fungal extract on cadmium and drug on cadmium and the results were determined by statistical analysis.

Results: There was a significant difference in ALT, AST, creatinine, interleukin-12, interleukin-21 and TNF-alpha between the healthy control and poisoned groups and showed a higher mean ALT, AST, creatinine, interleukin-12, interleukin-21 and TNF-alpha. It is poisoned.

Outcome and Discussion: According to the results of the present study, a significant difference was observed in the poisoned group compared to the group receiving blue fungus and the group poisoned with the alcoholic fungus. The mean level of IL-12, 21, and TNF-alpha was higher than the other two groups. In fact, administration of the fungal extract reduced serum levels of interleukin 12, 21, and TNF alpha in immunocompromised mice.

Keywords: *Pleurotus citrinopilatus*, Cadmium, Poisoning



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**Effect of *Pleurotus citrinopilatus* extract on immune deficiency
induced by cadmium poisoning in rat**

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