



Effects of Oyster Meat Extract on Anti-fatigue Ability and Hypoxia Tolerance in Mice

Abstract

Objective: To explore the effects of oyster meat extract on the anti-fatigue ability and hypoxia tolerance of mice.

Methods: Mice were continuously intragastrically administered with high, medium and low doses of oyster meat extract. The intervention time of different doses was 2 weeks and 4 weeks. After the intervention, the weight-bearing swimming time and immune organ index was observed by weight-bearing swimming test. The ability of hypoxia tolerance was observed by hypoxia test under ordinary pressure. The changes of liver glycogen and blood lactate content after exercise were observed by forced swimming test.

Results: Compared with the control group, the weight-bearing swimming time and hypoxia death time of the oyster meat extract intervention groups were significantly prolonged ($P < 0.05$), the liver glycogen content increased ($P < 0.05$), the serum blood lactate content decreased ($P < 0.05$), the immune organ index increased ($P < 0.05$), and the mice's anti-fatigue ability improved with the extension of the intervention time and the increase of the intervention concentration. When the intervention time was four weeks, the effect was the best.

Conclusions: Oyster meat extract can improve the anti-fatigue ability and hypoxia tolerance of mice, and enhance the immunity of mice.

Keywords: Oyster meat extract; Anti-fatigue; Hypoxia tolerance; Immunity; Mouse; Weight-bearing swimming test; Hypoxia test under ordinary pressure; Forced swimming test

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