



Effect and mechanism of Rhizoma Atractylodis Macrocephalae on gastrointestinal motility in animals

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Abstract

AIM: The effect of different doses of Rhizoma Atractylodis Macrocephalae (RAM) on the spontaneous contraction of isolated guinea pig ileum was examined.

METHODS: RAM 0.1 μ slightly inhibited the spontaneous contraction of isolated guinea pig ileum; RAM 0.2 μ or higher concentrations significantly enhanced the spontaneous contraction of isolated guinea pig ileum in dose dependent manner. The distance traveled by charcoal meal through the small intestine in mice measured in terms

of propulsive motility.

RESULTS: (1) RAM 0.1 mg/10 g weight markedly increased the propulsive distance of charcoal meal in mice, the effects were abolished by atropin (0.1 mg/10 g weight IP); (2) Regitine (0.03 mg/10 g weight IP) partly blocked the increased gastrointestinal propulsive motility by RAM; (3) No effects were found on the increased gastrointestinal propulsive motility after injection of propranolol (0.07 mg/10 g with IP).

CONCLUSION: The results indicate that RAM has an exciting effect on the propulsive motility of gastrointestinal tract, which may be mediated *via* M receptor and α receptor.

Key words: Rhizoma atractylodis macrocephalae; Isolate guinea pig ileum; Gastrointestinal; Propulsive motility; M receptor α receptor

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