

Original Paper

Effect of Hydroalcoholic extract of *Valeriana Officinalis* root on the ileum contraction in Guinea pig

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Abstract

Background and Objective: *Valeriana Officinalis* administrated for treatment of many gastrointestinal disorders traditionally and probably reduced smooth muscle contraction and bowel movement. The aim of this study was to determine the effect of *Valeriana Officinalis* extract on Ileum contraction of Guinea pig ileum in In Vitro model.

Materials and Methods: This experimental study done on five male Guinea pigs. The animals were sacrificed and the pieces of ileum with 2-3cm long (at least 6 pieces) dissected and established in normal Tyrod solution plus Carbogen gas in 37°C. Tissue fixed between of two electrodes that connected to stimulator apparatus. The contraction of ileum carried to physiograph by isotonic transducer and recorded. A solution with 5 concentration of *Valeriana Officinalis* extract was added to the organ bath during ileum stimulation with stimulator and the muscle contraction recorded in 7 responses.

Results: Hydroalcoholic extract of *Valeriana Officinalis* root in concentrations of 5, 15, 50, 150, 500 mg/ml during 0.1 Hz stimulation decreased Ileum contractions in a dose dependent manner. The percent of reduce contraction was 34.45%, 36.07%, 47.53%, 56.42%, and 76.22% respectively. Also Ec50% of this effect of *Valeriana Officinalis* was found to be 50 mg/ml (P<0.05).

Conclusion: This study showed that *Valeriana Officinalis* extracts can decrease ileum contraction in dose dependent manner.

Keywords: *Valeriana Officinalis*, Bowel Contraction, Guinea pig, Ileum

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