

عنوان مقاله:

The Effects of *Achillea wilhelmsii* Extract on Rat's Gastric Motility at Basal and Vagal Stimulated Conditions

محل انتشار:

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خلاصه مقاله:

Objective(s) *Achillea* genus is widely used in traditional medicine for gastrointestinal disorders. The aim of this study was to investigate the effects of aqueous-ethanol extract of *Achillea wilhelmsii* on rat's gastric motility in basal and vagal stimulated conditions. Materials and Methods Twenty four Wistar rats were randomly divided into two groups: control and test. The extract was prepared by maceration which was used to prepare three 0.5 ml samples of three doses (0.5, 1 and 2 mg/kg) in the test group. The same volume of saline was used in the control group. Gastric motility was measured by inserting a small balloon in the stomach which was connected to a pressure transducer. The data were recorded for 25 min duration after each dose and these data were analyzed for 3 intermittent five min intervals ($t_1= 0-5$, $t_2= 10-15$ and $t_3= 20-25$ min). Results The extract at basal condition decreased intragastric pressure (IGP) by 1 mg/kg dose in the t_3 and 2 mg/kg in the t_2 and t_3 intervals. The extract at vagal stimulated condition decreased IGP by 1 and 2 mg/kg doses in the t_2 and t_3 intervals. The extract reduced contraction amplitude at basal condition by 2 mg/kg dose in the t_2 and t_3 intervals. At vagal stimulated condition contraction amplitude was reduced by 1 mg/kg dose in the t_2 and t_3 by 2 mg/kg in all three intervals. The extract showed no effect on frequency of gastric contraction in either basal or vagal stimulated conditions. Conclusion The extract showed an inhibitory effect on gastric motility in both basal and vagal stimulated condition. This inhibitory effect may be exerted by an antagonistic effect on acetylcholine dependent calcium influx or release of calcium from intracellular storage in gastric smooth muscle.

کلمات کلیدی:

Achillea wilhelmsii, Gastrointestinal Motility, Vagus Nerves

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