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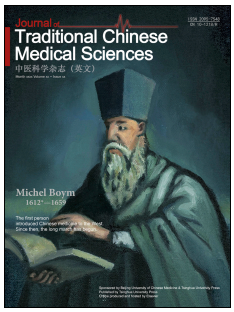

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PII: S2095-7548(17)30009-1

DOI: 10.1016/j.jtcms.2017.07.012

Reference: JTCMS 121

To appear in: *Journal of Traditional Chinese Medical Sciences*

Received Date: 20 January 2017

Revised Date: 4 July 2017

Accepted Date: 5 July 2017

Please cite this article as: Wang Y, Wang Z, Chang X, Zhang S, Antispasmodic effect of *Bupi Yichang* pill on colonic contraction of rats *in vitro*, *Journal of Traditional Chinese Medical Sciences* (2017), doi: 10.1016/j.jtcms.2017.07.012.

Antispasmodic effect of *Bupi Yichang* pill on colonic contraction of rats *in vitro*

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Abstract

Objective: To investigate the pharmacological effect of *Bupi Yichang* (BPYX) pill on colonic contraction of rats and explore its underlying mechanism.

Methods: The experiments were performed on colonic longitudinal smooth muscle strips (CLSMs) under isometric conditions. CLSMs suspended in tissue chambers were stimulated by KCl (80 mM) or acetylcholine (ACh, 0.1 mM), or exhausting intracellular Ca^{2+} and internal flow of extracellular Ca^{2+} to induce muscle contraction and their responses to different doses of BPYX pill were observed .After that, incubation with different inhibitors was conducted to verify its underlying mechanism.

Results: *Bupi Yichang* pill dose-dependently and reversibly inhibited colonic contraction. The antispasmodic effect of BPYC pill was partially blocked by 3,4,5-trimethoxybenzoic acid 8-(diethylamino) octyl ester hydrochloride (TMB-8, an intracellular Ca^{2+} antagonist, 500 μM), thapsigargin (a non-competitive inhibitor of the sarco/endoplasmic reticulum Ca^{2+} ATPase, 1 μM), and nifedipine (a voltage-dependent Ca^{2+} channel blocker, 10 μM) ($P < .05$). However, there were no significant difference after incubation with ethylene glycol tetraacetic acid (EGTA, a