



BRITISH
PHARMACOLOGICAL
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BJP

British Journal
of Pharmacology

www.brjpharmacol.org

WILEY
Blackwell

Br J Pharmacol. 2020;177:2487–2654

TABLE 1 Summary of effects of cannabinoids (CBD, CBG, and anandamide) and the FAAH inhibitor JNJ1661010 on intestinal smooth muscle contractions

Tissue	CBD	CBG	JNJ1661010	Anandamide
Fundus	Significantly increased EFS relaxation at all frequencies (4, 8, and 16 Hz) at 10^{-6} M ($n = 5$)	ND	ND	ND
Ileum	$IC_{50} = 850$ nM ($n = 11$)	$IC_{50} = 120$ nM ($n = 3$)	$IC_{50} = 1.97$ μ M ($n = 3$)	ND
Colon	$IC_{50} = 329$ nM ($n = 6$)	$IC_{50} = 116$ nM ($n = 3$)	ND	$IC_{50} = 212$ nM ($n = 3$)

Abbreviation: ND, not determined.

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P134 | Effects of a *Thymus vulgaris* L. extract on the nonadrenergic noncholinergic relaxation of the rat gastric fundus

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Background and Purpose: Gastric accommodation dysfunction is a known pathogenetic mechanism of functional dyspepsia. Thyme preparations are traditionally used in some countries for the relief of digestive disorders. Thus, we aimed to evaluate whether the beneficial digestive effects of thyme preparations could be attributable to an increase in the NANC relaxation of the rat proximal stomach, an in vitro model of the gastric accommodation.

Experimental Approach: Longitudinal muscle strips from the gastric fundus of Wistar rats were placed inside 5-ml organ baths containing Krebs solution maintained at 37°C and bubbled with carbogen under isotonic (1-g load) and NANC (1- μ M atropine + 5- μ M guanethidine) conditions. The effects of a *Thymus vulgaris* L. extract (1–300 μ g·ml⁻¹) on the NANC relaxations of U46619 (0.1 μ M)-precontracted strips induced by low-frequency (2 Hz) and high-frequency (13 Hz) electrical field stimulation (EFS; 2 min) were studied. The amplitude of the initial rapid component of the 2-Hz EFS-induced relaxation measured at 10 s is completely due to nitric oxide (NO), whereas the AUC of 13-Hz EFS-induced relaxation is largely due to vasoactive intestinal polypeptide (Currò, Ipavec, & Preziosi, 2008). All responses were normalized by dividing them for the maximal relaxation induced by papaverine (300 μ M). The results were evaluated by means of one-way ANOVA or paired Student's *t* test. The extract (Thymox[®], EPO S. r.l., Milan, Italy) was characterized according to the European

Pharmacopoeia 9 and standardized to contain min. 0.3% thymol according to DAB 2007.

Key Results: The thyme extract (1–300 μ g·ml⁻¹) significantly reduced the peak amplitude of EFS (2 Hz)-induced relaxation at all concentrations tested, with the maximal reduction of $18.2 \pm 2.4\%$ ($P < .001$) of controls observed at 300 μ g·ml⁻¹ ($n = 4$). The extract (3, 10, and 300 μ g·ml⁻¹) significantly reduced by $30.2 \pm 10.3\%$ ($P < .05$), $37.3 \pm 10.2\%$ ($P < .01$), and $27.0 \pm 3.7\%$ ($P < .05$) of controls, respectively ($n = 4$), the 2-Hz EFS-induced relaxation measured at 10 s. The extract (100–300 μ g·ml⁻¹) relaxed the strips by $4.8 \pm 1.2\%$ and $17.3 \pm 1.6\%$ ($n = 4$), respectively. The extract (100 μ g·ml⁻¹) did not significantly affect the AUC of 13-Hz EFS-induced relaxation ($109.7 \pm 4.2\%$ of controls, $n = 4$).

Conclusion and Implications: The thyme extract slightly reduces the NANC relaxation of the proximal stomach induced by low-frequency neuronal activation, mainly by inhibiting the NO-mediated component. It also relaxes the smooth muscle of the proximal stomach, and this action could be responsible for its beneficial digestive effects.

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P135 | Effect of vildagliptin in treatment of experimentally induced ulcerative colitis in rats

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Background and Purpose: Ulcerative colitis (UC) is a chronic and progressive inflammatory disorder that is characterized by diffused mucosal inflammation of the distal colon and rectum. Pro-inflammatory cytokines and ROS are involved in the intestinal ulceration and mucosal disruption (Soliman, Keshk, Rizk, & Ibrahim, 2019). Vildagliptin (Vilda), a dipeptidyl peptidase IV inhibitor, has an anti-inflammatory activity manifested through reduction of TNF- α and NO levels. Yet its possible protective effect in UC has not been elucidated (El-Marasy, Abdel-Rahman, & Abd-Elsalam, 2018). Thus, the present study aims to