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Corrigendum

Corrigendum to 'Interleukin-1 receptor antagonist displays intrinsic agonist activity on rat gastric fundus motility in vitro' [Eur. J. Pharmacol. 275 (1995) 31–37] ☆

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Abstract

It has been shown previously that both forms of interleukin-1, 1α and 1β, produce dose-dependent relaxation of the rat gastric fundus in vitro, accompanied by an increased production and release of eicosanoids. This effect appears to be mediated, at least in part, by leukotrienes, since the inhibition of 5-lipoxygenase by specific drugs counteracts interleukin-1-induced gastric relaxation. In the present study, we attempted to antagonize interleukin-1-induced inhibition of gastric fundus motility with a interleukin-1 receptor antagonist. Surprisingly, the interleukin-1 receptor antagonist itself possessed interleukin-1-like agonist activity, since: (a) it produced rapid, dose-dependent relaxation of the rat gastric fundus, with an estimated EC_{50} of 70 pg/ml and a maximal effect at 10 ng/ml; (b) interleukin-1 receptor antagonist-induced relaxation was dose dependently inhibited by *N*-(3-phenoxycinnamyl)acetohydroxamic acid (BW A4c), a specific inhibitor of 5-lipoxygenase; (c) in the first 5 min after its addition to the bath solution, interleukin-1 receptor antagonist produced a significant increase in prostaglandin E_2 release from the gastric strips. This evidence suggests that, shortly after receptor occupancy, in this experimental model interleukin-1 and interleukin-1 receptor antagonist share the same pattern of mechanical and biochemical activities.

Keywords: Interleukin-1 receptor antagonist; Interleukin-1; Prostaglandin E_2; 5-Lipoxygenase; Stomach, rat

In our above-mentioned paper, the sentence on page 35, right-hand column, lines 6–8: 'gastroprotection against non-steroidal anti-inflammatory drugs', should be replaced by 'inhibition of gastric acid secretion'.

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