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INHIBITORY EFFECT OF LORGLUMIDE ON CCK-8-INDUCED
RESPONSES OF THE EXOCRINE SECRETION
IN ISOLATED PERFUSED PREPARATION OF THE RAT PANCREAS

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1. The effects of lorglumide on CCK-8-induced secretory responses (protein output and juice flow) were examined in the isolated perfused rat pancreas.
2. Continuous stimulation with 10pM or 30pM CCK-8 induced secretory responses which maintained steady levels. Continuous stimulation with 100pM CCK-8 induced secretory responses that consisted of two phases; a rapid initial rise followed by a secondary plateau. Continuous stimulation with 1nM CCK-8 induced secretory responses consisting of two phases; a rapid initial small rise followed by a gradual decline.
3. Lorglumide (0.3 μ M) partially inhibited the secretory responses induced by 10, 30, and 100pM CCK-8. A higher concentration of lorglumide (1 μ M) inhibited completely the secretory responses induced by 10pM, 30pM, or 100pM CCK-8.
4. Lorglumide (0.3 μ M) did not decrease, but rather increased, the secretory responses induced by 1nM CCK-8.
5. Lorglumide caused a parallel right shift of the dose-response relation for CCK-8-induced secretory responses.
6. Lorglumide (1 μ M) could not inhibit the secretory responses induced by carbachol (1 μ M).
7. These results obtained on the isolated perfused rat pancreas are compatible with the view that lorglumide is a potent, selective, and competitive CCK antagonist.