

COMPARATIVE EFFECTS OF OXYTOCIN AND 8-L-LYSINE-VASOPRESSIN ON THE ISOLATED GASTRIC WALL STRIPS OF MAN, CAT, RABBIT AND RAT

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Both excitatory and inhibitory effects of vasopressin and oxytocin on the motility of the gastrointestinal tract have been reported, depending on the specific segment of the gut, animal species or experimental conditions. The aim of this study was to investigate the effects of oxytocin and 8-l-lysine-vasopressin on the contractile activity of the gastric wall strips isolated from the gastric corpus of men, cats and rabbits and from the gastric fundus of rats. Concentration-dependent enhancement of the tone, as well as of the spontaneous contractions of the gastric longitudinal, but not of the circular smooth muscle layer of the cat was induced by 8-l-lysine-vasopressin (3.1×10^{-7} - 2.1×10^{-6} mol). 8-l-lysine-vasopressin had no effect on the tone and did not induce any contractions of the longitudinal or circular smooth muscle layers of the gastric wall strips resected from the rat, rabbit and human stomachs. Oxytocine (1.5×10^{-9} x 1.1×10^{-6} mol) did not induce contractions of the longitudinal and circular smooth muscle preparations from the gastric wall of men, cats, rabbits or rats. It is concluded that neurohypophyseal hormones have little or no significance in the regulation of the gastric motility.

Key words: Oxytocin, vasopressin, gastric motility

