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Peptide-induced emesis in cats

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The emetic action of several neuropeptides has been described in dogs, cats and pigeons (Kaneko & Uchiyama, 1979; Beleslin *et al.*, 1982; Carpenter *et al.*, 1984). However, these studies have not provided conclusive evidence on the role of peptides in the regulation of emesis. In the present study, the emetic action of opioid and some other biologically active peptides injected into the cerebral ventricles of unanaesthetized cats was investigated and compared to morphine-induced emesis.

In an aseptic operation under pentobarbitone sodium (35-40 mg/kg) anaesthesia, an infusion cannula was implanted into the left lateral cerebral ventricle of cats of either sex (2-3.5 kg), so that intracerebroventricular (icv) injections could be made without anaesthesia. Only expulsion of the gastric content was considered as a positive emetic response.

The results are presented in Table 1.

Table 1

The emetic effect of morphine and peptides injected into the cerebral ventricles of unanaesthetized cats.

Drugs	Doses	Number of cats vomited/tested	Relative emetic potency
morphine	0.002-4.0 mg	35/63	55.5 %
μ-agonist (DAGO[1])	0.00002-0.1 mg	5/26	19.2 %
met-enkephalin	0.05-1.0 mg	4/23	17.6 %
leu-enkephalin	0.1-1.0 mg	3/17	17.6 %
β-endorphin	0.01-0.4 mg	1/25	4.0 %
dynorphin	0.1-0.2 mg	0/5	0 %
insulin (human)	1.2-12 i.u.	0/5	0 %