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The Effect of Unilateral Injections of NKK into the Medial Preoptic Area on the Expression of Female Rat Sexual Behavior

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THE EFFECT OF UNILATERAL INJECTIONS OF NKK INTO THE MEDIAL PREOPTIC AREA ON THE EXPRESSION OF FEMALE RAT SEXUAL BEHAVIOR.

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The Medial Preoptic Area (MPOA) has been implicated in the neural circuit governing sexual receptivity (lordosis) in the female rat. Electrical stimulation of the MPOA inhibits the expression of lordosis behavior while lesions facilitate the expression of lordosis behavior. As a result the MPOA is believed to have a tonic inhibition on the expression of sexual behavior in the female rat. The neurotransmitter/neuropeptide that mediates the tonic inhibition of the expression of female sexual behavior at the level of the MPOA is presently unknown. One neuropeptide that has received increasing attention is Neurokinin P (NKP). NKP is known to facilitate the expression of lordosis behavior in ovariectomized estrogen primed female rats, when injected into the dorsal Midbrain Central Gray. In contrast to NKP, recent studies indicate Neurokinin K (NKK), a member of the same family of neurokinins may be involved in the tonic inhibition of male rat sexual behavior. Therefore the purpose of this pilot study is to assess the effects on sexual receptivity following unilateral injections of NKK into the MPOA. 1000ng/0.5ul of [Nle 10]-NKA(4-10) an NKK agonist and 0.5ul saline was injected into ovariectomized female rats treated with estrogen and progesterone and their proceptivity and receptivity were assessed. The results of this study will be presented at the conference.