

# Effects of LHRH on avoidance conditioning in normally cycling and ovariectomized female rats

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Several studies have demonstrated that the peptide LHRH can modify behavior in the male rat. Peripheral and intracerebral infusions of LHRH impair the acquisition of conditioned avoidance responses (CARs) and increase some spontaneous motor behaviors, such as head shaking and grooming. The present study was undertaken to detect the effects of LHRH on the acquisition of CARs and spontaneous motility in normally cycling and ovariectomized (OVX) Sprague-Dawley female rats. Normally cycling females were separated in four groups, according to the stage of the estrous cycle. Ovariectomized female rats were pretreated, 48 h before the experiment, with estradiol benzoate (10  $\mu$ g/kg) or corn oil. LHRH (6.25, 25, or 50  $\mu$ g/kg) was subcutaneously injected and the behavioral tests began 1 h after. Low doses of LHRH stimulated the acquisition of CARs during proestrus, estrus, and metestrus, whereas higher doses impaired conditioning in all the four stages of the cycle. High doses of LHRH impaired acq