

Luteinizing-hormone-releasing hormone modifies retention of passive and active avoidance responses in rats

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The influence of posttraining subcutaneous administration of luteinizing-hormone-releasing hormone (LHRH) was tested on the retention of either active or passive avoidance conditioning in male rats. Injection of LHRH (200 µg/kg) immediately after the acquisition of an active avoidance response (two-way shuttle behavior) enhanced retention of the response, assessed 7 days later. When the neuropeptide was injected immediately after a passive avoidance conditioning training, the effects varied with the intensity of the footshock applied. LHRH enhanced retention of avoidance training with weak footshock (0.20 and 0.35 mA) but impaired retention of training with strong footshock (0.70 and 1.0 mA). The effects of LHRH seem to be unspecific since they are similar to those observed after treatment with several hormones. The results are discussed based on the interactions between peripherally injected hormones and endogenous substances released following footshock. A modulatory effect on the mono