POSTER ABSTRACT

Dexamethasone Suppression of Corticosterone Secretion in Stressed Rats

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Many clinically depressed patients and animals exposed to inescapable stress demonstrate escape from the Dexamethasone Suppression Test (DST), which normally inhibits the secretion of cortisol in humans and corticosterone in animals. The purpose of this study was to refine the escapable/inescapable stress paradigm to replicate the DST in male Sprague Dawley rats. In Experiment One, the escapably shocked executive animals learned the bar press technique to terminate a stressor prior to testing and in Experiment Two, both executive and inescapably shocked yoked animals were stressed in small, restricted boxes. The results showed no significant differences between executive and yoked animals in either experiment. In Experiment One none of the groups demonstrated escape from the DST, while in Experiment Two, all of the groups showed DST escape. These results suggest that the two groups of animals received psychologically identical stressors. Future work should integrate these studies, by teaching the executive animals the bar press technique prior to testing, while stressing the animals in restricted chambers.