IMPACT OF THE TIME IN AN ANIMAL MODEL OF MOOD DISORDER

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Introduction: The behavior of nocturnal rodents is associated with circadian variation, whereby higher levels of activity are concentrated during the nocturnal period, highlighting the need to control circadian rhythms. Objective: The objective of this study is to evaluate whether different times of intervention in a depression model affects performance on animal behavioral tests. Methodology: The stress model used was the inescapable foot shock in 35 male 60-day-old Wistar rats. The animals received intervention in the light phase and in the dark phase, after that they were tested in the light or in the dark phase. Results: The light-dark box test showed that the Control L (tested in the light) was not significantly different from other groups across any of the parameters. However, when comparing the Control D (tested in the dark) to the intervention groups, we observed a difference in the mean length of time spent in the light and in the dark ($t=2.56$; $p=0.045$). Comparing the Control D with the experimental inescapable foot shock in the light and tested in the light group, we observed that the intervention group had made more crossings into the light ($t=-2.608$; $p=0.028$) and into the dark ($t=-2.488$; $p=0.035$). Furthermore, comparing to inescapable foot shock in the light and tested in the dark group, we observed that the treated group had made more crossings into the light side ($t=-2.571$; $p=0.030$) and dark side ($t=-2.398$; $p=0.040$). Conclusion: These results show that behavioral testing during the animal's period of higher activity revealed differences caused by the intervention, while no differences were apparent when the control group was observed during the day.