

1314**EFFECT OF FEEDING TIME ON METABOLIC DISTURBANCES IN THE WISTAR RAT**

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Introduction: Shift workers, particularly night workers, more frequently present metabolic changes when compared to day workers suggesting a predisposition for cardiovascular disease and the metabolic syndrome (MetS). Dietary quality has been reported as a potentially associated risk factor. To improve understanding of the consequences of a redistribution of a high-fat diet (HFD) based meal from day to night, the present study consisted of compared mealtimes with HFD. **Objective:** The aim of this study was to investigate the effect of timing of feeding on the development of metabolic disturbances. **Methods:** The experiment compared groups of Wistar rats that received HFD food during the dark period (DP), and food at light period (LP) for 2 different periods of time: 5 and 15 weeks. The HFD was composed of 45% fat. The amount of visceral adipose tissue (VAT) and serum levels of glucose, HDL-cholesterol (HDL), and triglycerides (TG) were measured. Body weight was assessed weekly and food and water intake were measured daily. Student's t-test for independent samples was used. **Results:** In the experiment, at 15 weeks, the DP group had higher body weight ($p=0.03$), glucose ($p=0.04$), food intake ($p<0.001$), water intake ($p=0.03$) and energy intake ($p<0.001$) than the LP group. No differences were found at 5 weeks of intervention. **Conclusion:** These finding suggests that HFDs can cause metabolic alterations when this diet is provided at different times of day and most changes in weight and metabolic parameters will occur during the active period (DP) of the animals, not during the rest period. Also, we are able to affirm that that supplying with food in rest period is not enough for weigh gain. **Palavra-chave:** mealtime; high-fat diet; Wistar rats. Projeto 12-0198