COMPARATIVE STUDY OF DIFFERENTS SUGAR TYPES IN D. MELANOGASTER MODEL

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Type 2 diabetes mellitus have become one of the most common disorders associated with the metabolic syndrome characterized by insulin resistance, being frequently associated with dyslipidemia, obesity, arterial hypertension and also cardiovascular diseases. Excess sugar in the bloodstream predisposes to diabetes and also to increased body fat may affect organs because excess sugar can turn into fat if-predisposing to obesity and therefore deposit these fats in some organs. To analyze the effect of different sugars in glucose and triglyceride concentrations using an experimental model D. melanogaster. D. melanogaster were created in an environment with a temperature of 25 ± 2 °C, packed in glass jars and kept in own greenhouses with controlled humidity and temperature, light / dark cycle of 12 hours. The culture medium consists of a standardized mixture of corn flour, wheat germ, sugar to be studied, milk powder, salt and yeast. D. melanogaster have been synchronized after a week in culture medium separated in males and females, weighed and dosed concentration of glucose and triglycerides of different sugars separately through a micro plate reader at λ 492 nm in the dosage kits were used Specific Labtest glucose and triglycerides. Results shown for weight females, glucose and triglycerides were 1,28mg, 144,5mg / g of fly and 24,6mg / g fly, respectively Males showed 0,9mg values, 2,9mg / g and fly 2,5mg / g fly, for weight, glucose and triglycerides, respectively. Analysis of the results showed higher values for D. melanogaster females compared to males. Comparatively, brown sugar showed higher values compared to other sugars, crystal and refined.

Key words: Sugar, D. melanogaster, diabetes mellitus.

Acknowledgements: CAPES, CNPq