Reversing High Glucose Levels through a Novel Approach: C. elegans as a Model for Treating Diabetes

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Title: Reversing high glucose levels through a novel approach: C.elegans as a model for treating diabetes Purpose: To determine which method will best “treat” or reverse the effects of the high glucose levels in the Caenorhabditis elegans. Hypothesis: If the C.elegans are treated with the deer antler velvet , Korean Ginseng, green tea,Vitamin C and turmeric extract, then the turmeric and the deer antler velvet will prove to be better novel methods to treat diabetes. Procedures: Caenorhabditis elegans were maintained to achieve glucose concentrations resembling the hyperglycemic conditions in human diabetic patients. After manifesting diabetic symptoms the C.elegans will be treated with novel treatments that could possibly help treat diabetic patients. This project will look into short term, long term treatments and will focus on the top novel treatments when compared to treatments using insulin. I will be collecting data such as the ketones, glucose levels, life span, life count, pH, population and fat composition. Which will help determine whether the treatments are “treating” the nematodes. Results: The ginseng and the deer antler velvet showed promising results. The ginseng and deer antler velvet allowed for ketones, pH and fat to return to levels close to the control. Conclusion: I reject my hypothesis because the data suggests that the ginseng is the most efficacious approach when treating type two diabetes both in the short term and long term treatments. Subsequently, the deer antler velvet is showing promising results in the effort to“treat” the diabetic nematodes.

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