A Review of Shiga Toxin-producing E. coli-induced Convulsions/Seizures Effects on the Expressions of Drosophila melanogaster

Thomas, Jordan (School: University School of Milwaukee)

Shiga toxin-producing E. coli-induced convulsions/seizures will affect the expressions of Drosophila melanogaster (common fruit flies). This is due to the fact that Shiga toxin-producing E. coli (STEC) causes convulsions and seizures in common fruit flies, and will therefore affect their expressions; the observed effects STEC has on common fruit flies can be used to make a loose relation as to how STEC-induced convulsions and seizures would impact the expressions of humans. Four vials were used in total: three study groups with the same variables, which were vials 1, 2 and 3, and then a control group, which was vial 4. 15±2 flies, along with 14 grams of food, which consisted of 10 grams of apple slices that were dyed red, and 4 grams of yeast food supplement were added to each vial. However, the food in vials 1, 2, and 3 was contaminated with E. coli. Both quantitative and qualitative data. The quantitative data in graph 1 indicates how long, in days, it took for fruit flies to consume the E. coli after their exposure to the bacteria. In addition, in graph 2, the data exhibits how long, also in days, it took the fruit flies to begin displaying convulsions and seizures, after they consumed the E. coli. The qualitative data involved any change in the behavior of the flies, which would indicate a convulsion or seizure. The behavior among the three independent study groups varied from that of the control group, especially in regard to their behavior, and the fruit flies in the study groups also expressed a symptom(s) of a seizure. Based on this research and observations STEC-Induced seizures do affect the expressions of fruit flies and can therefore be used to create loose relations as to how STEC induced convulsions and seizures would impact humans.

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