Does Gotu Kola (Centella asiatica) or Moringa (Moringa oleifera) Have an Effect on ALS Flies?

Somawardana, Ashara

Amyotrophic Lateral Sclerosis (ALS) is the most common form of neuromuscular disease that has no known cure. Many scientists believe that ALS disease results from a defective gene of a chemical imbalance in the brain of too much glutamate. ALS affects the motor neuron cells that control the muscles. Once these cells are lost, the brain is unable to control the muscle movement and therefore the muscles become weak and nonfunctional. The purpose of this experiment is to see the effect of Gotukola and Moringa, two well-known natural products for their medicinal qualities as an improvement to the functional ability of ALS fruit flies. Organic Gotukola and Moringa powder were used and extracts were prepared using Ethanol. Fruit fly activity was measured separately for males and females of wild type from ALS. Gotukola, Moringa and a mix of these two solutions were added to the food of the flies in each category. The righting time, climbing time and the lifespan were recorded. The findings suggest that Gotukola improved the functional ability of the flies by 14% where improvements due to Moringa were only 7%. The flies who consumed both showed a synergistic improvement of 21%. Females whom ingested the combination improved 23% more than their male counterparts. The life span of all flies who consumed any of the plant extracts were increased. The combination of the two herbal therapies appears to be beneficial in the health of the ALS female and male flies with females having the best performance. .

Awards Won:
Third Award of $1,000