

Update on NCL-TTs treated with Stem Cells

Neuronal ceroid lipofuscinosis (or NCL for short) is an adult-onset neurodegenerative disease with primary lesions in the brain and eye. Behavioral changes and loss of vision in older Tibetan terriers are the most common symptoms noted by owners. Other symptoms include changes in temperament (becoming aggressive, anxious, nervous), uncoordinated gait, impaired vision under dim light conditions, loss of house training and recognition skills. Advanced stages may include mild to severe seizures, especially in the later stages. Symptoms typically first appear at 4-6 yrs of age, and progress to death or euthanasia by age 7-10 years.

To date, we have treated two NCL-affected TTs with adult stem cells, here referred to as Toronto Dog and Baltimore Dog. Toronto Dog received two treatments and Baltimore Dog has had one. Both appear to have responded favorably with no ill effects associated with the stem cell administrations. Following treatment, both owners have kept in frequent contact by email and their reports are very encouraging. They are very careful to objectively describe specific tasks that the dogs can do after treatment that they could not do before treatment. Both dogs appear to have improved and are doing much better, moving better, and not suffering from the “anxiety attacks” that are characteristic of NCL. Because dog behavior is difficult to interpret, we do not want to claim that these dogs are “well” but they have improved. This improvement appears to be real based on the owner’s description of their dog’s responses in objective terms rather than subjective opinions. We will begin treating a third NCL-TT next week that is in more advanced stages of NCL.

One definition of “good science” is that “it asks more questions than it answers”. And if these initial observations hold true, we now have many more questions to ask. How long will the beneficial effects last? What is the minimum dose of cells? What is the best route of administration? Will treatment repair the vision deficits? Will treated dogs have a normal life expectancy? Will pre-instruction of the cells make them more therapeutic? Can we pre-treat an affected dog and prevent NCL from ever occurring? This is very exciting and humbling for all of us involved in this project. We will continue to treat and monitor the dogs frequently, so stay tuned.....and consider supporting your friendly, hardworking Tibetan Terrier Health and Welfare Foundation.

If you would like additional information about these clinical trials being conducted at ReGena-Vet Labs, Davis, CA, contact Dr. Richard Vulliet or Pamela Rosman at regenavetlabs@gmail.com.