STEM CELL THERAPY FOR CATS WITH CHRONIC, NON-RESPONSIVE GINGIVOSTOMATITIS

Project Study: Autologous Adipose-Derived Mesenchymal Stem-Cell Therapy for Cats with Chronic, Non-Responsive Gingivostomatitis

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Final Report Summary (MT12-002)

The investigators for this project have studied the past two years the usefulness of stem cell therapy for cats with gingivostomatitis, a form of chronic oral disease. The project is near completion. Ten cats with severe disease nonresponsive to previous therapies (full-mouth extractions, corticosteroids and antibiotic therapy) were evaluated for oral disease. Full mouth radiographs were taken and each cat had comprehensive blood work done at different set stages of the project.

Following this protocol, each cat received two treatments with stem cells and then each was assessed clinically. The majority of patients experienced improvement in their clinical condition, usually after the second injection of feline mesenchymal stem cells (fMSCs). A number had complete cures after the second treatment. Two cats have received their two treatments and are still currently under observation.

Also, during the study, the investigators discovered that fMSCs might be affected by feline foamy virus (FFV) where the virus renders the stem cells not culture viable for therapeutic use. FFV has been reported to infect 60-70% of older cats and limits the ability of a FFV positive cat to use stem cells derived from its own body (autologous therapy) to treat their gingivostomatitis. Otherwise, the virus does not cause clinical disease in the cat.

The investigators have concluded that stem cell therapy holds great promise for routine treatment of gingivostomatitis. One manuscript from the project is in review and another is in preparation. The hope is to refine this potential treatment for future clinical practice application. The work has also received considerable notice by the NIH for future study in people with chronic oral disease.

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