STEM CELL THERAPY FOR CATS WITH CHRONIC GINGIVOSTOMATITIS

PROJECT STUDY: Early intervention using autologous adipose-derived mesenchymal stem cell therapy for cats with chronic gingivostomatitis: Randomized, controlled and blinded study.

Principal Investigator: Boaz Arzi, DVM, DAVDC, DEVDC; University of California-Davis

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Feline chronic gingivostomatitis (FCGS) treatment usually involves medical and surgical approaches including full-mouth tooth extraction and the use of both antibiotics and immunosuppressive drugs. These treatments, however, do not cure the disease and are not ideal as there are significant side-effects that affect the quality of life for the cat. One potential therapy uses stem cells that are extracted from cat fat tissue [fat-derived mesenchymal stem cells (adMSC)]. This therapy has about a 70% cure rate in cats with refractory FCGS (all of the teeth removed). For this proposal, the investigators’ aim was to expand upon their previous studies and to treat cats with stem cells that had a recent diagnosis of FCGS, prior to having full-mouth extractions. This study was important because if the proposed stem cell treatment proved to be beneficial for cats that do not have full-mouth extractions, it will revolutionize the treatment options for cats with FCGS, decrease the need for invasive surgical removal of their teeth, improve their quality of life and expand cell therapy to a wider range of diseased cats.

FCGS is diagnosed when there is inflammation lateral to the palatoglossal folds, with or without gingivitis, and the diagnosis is confirmed by biopsy and histopathology. To date, what they have learned in this study is that most cats affected with FCGS also suffer from periodontitis and, therefore, many teeth need to be extracted regardless of the FCGS (this is also documented in the literature). Enrollment criteria in this study included that if more than 50% of the teeth had been extracted, or needed to be extracted, the cat did not qualify for the study (but could be enrolled in their other clinical trial where full mouth extraction is mandatory). Hence, recruiting appropriate candidates for the study was slow and required about 12-18 months to complete.

They enrolled a total of 6 cats in the clinical trial. These 6 cats did not require extensive tooth extractions. Blood work was performed for all cats as described. Out of the 6 cats, 2 cats had some initial response and 4 cats did not respond at all. Given the low response rate and the need for extraction therapy for most all cats with FCGS, the investigators decided to conclude the study and will be writing a manuscript in the near future. Their future recommendations are to pursue extractions of the premolar-molar teeth or a full-mouth extraction for cats with FCGS. If the cat is non-responsive to extractions therapy, MSCs therapy is recommended.

Publications: A manuscript is in the process of being developed.

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