STEM CELL THERAPY FOR CATS WITH INFLAMMATORY BOWEL DISEASE

PROJECT STUDY: Allogeneic adipose-derived mesenchymal stem cell therapy for cats with inflammatory bowel disease.

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“Stem cell therapy” is becoming well known in human medicine, predominantly for conditions involving joints, osteoarthritis, and orthopedics. In veterinary medicine the focus of stem cell therapy to date has been similar: injections into horse joints, treatment of osteoarthritis in dogs, etc. Stem cells may be able to regenerate tissues and in this way repair injured areas, but they also have tremendous anti-inflammatory and immune-modulatory properties. Therefore, stem cells are also being studied for their potential benefit in immune-mediated diseases and other inflammatory conditions affecting people, horses, dogs, and cats.

The investigators have concentrated on the gastrointestinal (GI) system, with the most common cause of chronic GI disease in adult cats being inflammatory bowel disease (IBD). This study was designed to determine if adipose (fat)-derived feline (mesenchymal) stem cells could be used to treat cats with IBD and do so safely and as effectively as the standard treatment, a steroid (prednisolone). After the diagnosis of IBD was confirmed, affected cats were randomly assigned to either the stem cell or prednisolone group; their owners were ‘blinded’ to the treatment group. A standard scoring system was used to determine response to therapy over the full 6-month study period. Although the investigators ended up with only 6 cats per group (many cats were diagnosed with GI lymphoma during the case work-up), this study showed that their specific stem cell therapy, developed at CSU thanks to Winn Feline Foundation funding, was safe, and as effective as giving these cats prednisolone. They hope to eventually make this treatment option available to cat owners, and perhaps study the treatment’s effect on cats with GI lymphoma.

Publications:


Presentations:

ePoster presentation at ACVIM 2020 Forum