

Case Report of Chronic Hip Lameness

Patient Data

Breed: Schnauzer Mix
Age: 8 yrs
Sex: Spayed Female



History

This dog had chronic hip lameness for over 6 months. NSAID treatment once a day, did not control the discomfort, thus the owners wanted another option to alleviate their dog's pain.

Pre-Treatment Exam

October 13, 2006:

- Physical exam: generally healthy and at an ideal weight
- Orthopedic exam: persistent lameness at a walk and trot, severe pain on manipulation, pain at less than full range of motion and stiffness causing the dog to only run or walk when coaxed (Table 1)
- Radiographic exam: severe degenerative joint disease with bilateral periarticular osteophytosis, thickened femoral neck, deformed femoral head, neck with osteophytes of ventral femoral head and a shallow, deformed acetabulum
- Owner evaluation: most troublesome problems were inability to jump into the car or on furniture, going up and down stairs, squatting and stiffness at the beginning of the day (Table 2)

Adipose Collection

On October 24, 2006, adipose (41.3 grams) was collected from the inguinal area.

Stem and Regenerative Cells Injection

On October 26, 2006, both hips were injected intra-articularly with 5,000,000 stem and regenerative cells each, from the dog's own adipose tissue.

Exams Post Stem Cell Treatment

On November 25, 2006:

- Orthopedic exam: improvement in all parameters recorded, with 3 of 5 listed as normal (Table 1)
- Owner assessment: improvement in 7 of 11 quality of life parameters. (Table 2)

On December 22, 2007

- Orthopedic exam: 4 of 5 parameters normal for the left hip and all 5 parameters as normal for the right hip
- Owner assessment: 8 of 13 parameters improved from before treatment

On January 23, 2007

- Orthopedic exam: most parameters stable with a few falling by one point
- Owner assessment: 9 of 13 parameters improved from before treatment and the owner noting that the dog appeared normal or near normal

At the 180 day recheck, the dog remained lameness free and had sustained improvement in quality of life measurements

Summary

This owner was given a poor prognosis for significant improvement in quality of life for this relatively young and otherwise healthy Schnauzer. The owner opted for regenerative cell therapy. This case study demonstrates that the dog's lameness and functional impairment improved significantly with the owner assessment reporting that the dog was nearly normal.

Table 1 – Veterinary Orthopedic Assessments

	Test-R				
	Pre-treatment	Day 30	Day 60	Day 90	Day 180
Veterinary					
Orthopedic Exam					
Left Hip					
Lame-walk					
Not detectable		1	1	1	1
Intermittent					
Persistent	3				
Persistent-Non					
Ambulatory w/assist					
Non-ambulatory					
Lame-Trot					
Not detectable		1	1	1	1
Intermittent					
Persistent	3				
Persistent-Non					
Ambulatory w/assist					
Non-ambulatory					
Pain on Manipulation		NG			
No pain					1
Mild Pain			2	2	
Severe Pain	3				
Range of Motion					
No limitation			1		
Pain only at full		2		2	2
Pain at less than full	3				
Pain at any attempt					
Functional Disability					
Normal activity		1	1	1	
Slightly stiff gait					2
Stiff					
Very stiff	4				
Does not want to walk					
Subjective					
Worse					
Unchanged					
Slightly improved					
Good improvement		2	2	2	2
Excellent					

Table 1 Continued

	Pre-treatment	Day 30	Day 60	Day 90	Day 180
Right Hip					
Lame-walk					
Not detectable		1	1	1	1
Intermittent					
Persistent	3				
Persistent-Non					
Ambulatory w/assist					
Non-ambulatory					
Lame-Trot					
Not detectable		1	1	1	1
Intermittent					
Persistent	3				
Persistent-Non					
Ambulatory w/assist					
Non-ambulatory					
Pain on Manipulation					
No pain		1	1		1
Mild Pain				2	
Severe Pain	3				
Range of Motion					
No limitation		1	1		
Pain only at full				2	2
Pain at less than full	3				
Pain at any attempt					
Functional Disability					
Normal activity		1	1	1	
Slightly stiff gait					2
Stiff					
Very stiff	4				
Does not want to walk					
Subjective					
Worse					
Unchanged					
Slightly improved					
Good improvement		2	2	2	2
Excellent					

Table 2 – Owner Quality of Life Assessments

	Pre-treatment	Day 30	Day 60	Day 90	Day 180
Lame-walk					
No problem	1	1	1	1	1
A little					
Quite a bit					
Severe					
Won't do					
Run					
No problem			1	1	
A little	2	2			2
Quite a bit					
Severe					
Won't do					
Jump, eg car, furniture					
No problem		1	1	1	1
A little					
Quite a bit	3				
Severe					
Won't do					
Turning suddenly					
No problem		1		1	1
A little	2		2		
Quite a bit					
Severe					
Won't do					
Get up from lying					
No problem		1	1		
A little	2			2	2
Quite a bit					
Severe					
Won't do					
Lying down from stand					
No problem	1	1	1	1	1
A little					
Quite a bit					
Severe					
Won't do					
Climbing stairs		NA			
No problem				1	1
A little			2		
Quite a bit	3				
Severe					
Won't do					

Table 2 Continued

	Pre-treatment	Day 30	Day 60	Day 90	Day 180
Descending stairs		NA			
No problem				1	1
A little			2		
Quite a bit	3				
Severe					
Won't do					
Squatting to urinate					
No problem		1	1	1	1
A little					
Quite a bit	3				
Severe					
Won't do					
Stiffness in am					
No problem		1			
A little			2	2	2
Quite a bit	3				
Severe					
Won't do					
Stiffness at end of day					
No problem		1		1	
A little	2		2		2
Quite a bit					
Severe					
Won't do					
Difficulty-slippery floors					
No problem		1	1	1	1
A little	2				
Quite a bit					
Severe					
Won't do					
Willingness to play-v					
No problem	1	1	1	1	1
A little					
Quite a bit					
Severe					
Won't do					
Condition change					
Become worse					
No change					
Slightly improved					
Marked improvement		2	2		2
Excellent				1	
Energy level					
Become worse					
No change					
Slightly improved					
Marked improvement		2	2		2
Excellent				1	