

## 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**

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

**Table 1 Continued**

	Pre-treatment	Day 30	Day 60	Day 90	Day 180
<b>Right Hip</b>					
<b>Lame-walk</b>					
Not detectable		1	1	1	1
Intermittent					
Persistent	3				
Persistent-Non					
Ambulatory w/assist					
Non-ambulatory					
<b>Lame-Trot</b>					
Not detectable		1	1	1	1
Intermittent					
Persistent	3				
Persistent-Non					
Ambulatory w/assist					
Non-ambulatory					
<b>Pain on Manipulation</b>					
No pain		1	1		1
Mild Pain				2	
Severe Pain	3				
<b>Range of Motion</b>					
No limitation		1	1		
Pain only at full				2	2
Pain at less than full	3				
Pain at any attempt					
<b>Functional Disability</b>					
Normal activity		1	1	1	
Slightly stiff gait					2
Stiff					
Very stiff	4				
Does not want to walk					
<b>Subjective</b>					
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
<b>Lame-walk</b>					
No problem	1	1	1	1	1
A little					
Quite a bit					
Severe					
Won't do					
<b>Run</b>					
No problem			1	1	
A little	2	2			2
Quite a bit					
Severe					
Won't do					
<b>Jump, eg car, furniture</b>					
No problem		1	1	1	1
A little					
Quite a bit	3				
Severe					
Won't do					
<b>Turning suddenly</b>					
No problem		1		1	1
A little	2		2		
Quite a bit					
Severe					
Won't do					
<b>Get up from lying</b>					
No problem		1	1		
A little	2			2	2
Quite a bit					
Severe					
Won't do					
<b>Lying down from stand</b>					
No problem	1	1	1	1	1
A little					
Quite a bit					
Severe					
Won't do					
<b>Climbing stairs</b>		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
<b>Descending stairs</b>		NA			
No problem				1	1
A little			2		
Quite a bit	3				
Severe					
Won't do					
<b>Squatting to urinate</b>					
No problem		1	1	1	1
A little					
Quite a bit	3				
Severe					
Won't do					
<b>Stiffness in am</b>					
No problem		1			
A little			2	2	2
Quite a bit	3				
Severe					
Won't do					
<b>Stiffness at end of day</b>					
No problem		1		1	
A little	2		2		2
Quite a bit					
Severe					
Won't do					
<b>Difficulty-slippery floors</b>					
No problem		1	1	1	1
A little	2				
Quite a bit					
Severe					
Won't do					
<b>Willingness to play-v</b>					
No problem	1	1	1	1	1
A little					
Quite a bit					
Severe					
Won't do					
<b>Condition change</b>					
Become worse					
No change					
Slightly improved					
Marked improvement		2	2		2
Excellent				1	
<b>Energy level</b>					
Become worse					
No change					
Slightly improved					
Marked improvement		2	2		2
Excellent				1	