

## INTRA-ARTICULAR TREATMENT OF NATURALLY OCCURRING CANINE ELBOW ARTHRITIS USING HOMOGENEOUS TIN-117M COLLOID

John M. Donecker<sup>a\*</sup>, Nigel R Stevenson<sup>a</sup>, Gilbert R Gonzales<sup>b</sup>

<sup>a</sup>*Exubrion Therapeutics: 5203 Bristol Industrial Way, Buford, GA 30518 USA*

<sup>b</sup>*Serene LLC: 21 Waterway Avenue, Suite 225, The Woodlands TX 77380 USA*

[\\*jdonecker@exubrion.com](mailto:jdonecker@exubrion.com)

### Introduction

It has been suggested that as many as 20% of dogs over 1 year of age are afflicted with osteoarthritis (OA).<sup>1</sup> Radiosynoviorthesis (RSO) has been used successfully to treat human arthritides using other radioisotopes. This study determined whether homogeneous tin-117m colloid (HTC) a veterinary device could successfully treat naturally occurring canine elbow OA by RSO.

### Description of the Project

There were three phases to this multi-centered observational safety and effectiveness study with each phase lasting 1 year in study dogs. Phase 1 was the intra-articular (IA) label dose treatment of a single elbow of companion dogs with mild or moderate elbow OA with HTC. Phase 2 was the IA label dose HTC treatment bilaterally or unilaterally as clinically indicated of companion dogs with severe elbow OA. Phase 3 was to reinject companion dogs a second time IA with HTC which previously had been treated in phase 1. In phase 3 both elbows were injected one for the second time and one for the first time. Comparisons were made with data collection times at 1, 3, 6, 9 and 12 months post treatments to baseline control values to determine successful improvement and safety.

Table 1: 3 phases of IA HTC canine elbow OA study

	Treated dogs	Treated elbows	Successful Improvement
Ph.1: unilateral IA treatment of mild-mod. OA	13	13	12
Ph.2: IA treatment of severe OA	14	25	11
Ph.3: reinjection of Ph.1 treated elbows	9	18	6

Successful improvement of each dog's condition with elbow OA was determined by composite scoring utilizing a validated client canine brief pain inventory survey, clinicians' lameness scoring and force plate evaluation when available.

### Conclusion

Intra-articular injection of HTC, a veterinary device, to treat naturally occurring elbow OA in companion dogs was observed to be safe and effective and can be repeated a second time when indicated.

### References

1. Johnston SA. Osteoarthritis: Joint anatomy, physiology, and pathology. *Vet Clin North Am: Small Anim Pract.* 1997 Jul;27(4):699-723.