

Clinical Trials Begin on Pain-Relief Drug for Dogs

The injectable product can provide dogs with extensive relief for acute or chronic pain.

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Lesley Smith, DVM, an anesthesiologist at the University of Wisconsin-Madison School of Veterinary Medicine, is gearing up to begin clinical trials on a new injectable pain-relieving drug formulation, said to be the first extended-release product that delivers opioids continuously and effectively.

She said the initial studies, which involved determining the appropriate dosages in Beagles, had excellent results.

“We’re hoping our new pain-relief injections will perform as well as or better than the current standard of care, which is usually a continuous drip of fentanyl analgesic via an intravenous catheter,” Dr. Smith said.

So far, the liposome-encapsulated opioids, developed by Timothy Heath, Ph.D., at the UW-Madison School of Pharmacy and Lisa Krugner-Higby, DVM, of the Research Animal Resources Center, have provided steady, long-acting pain relief, and have proven easy to use.

Depending on formulation strength, the injection can provide pain relief for either five days, for acute pain, or 21 days, for chronic pain.

“Because this is injectable, and intravenous catheters and constant observation are not necessary, the patient will not have to stay in a critical care unit,” Smith said. “Another advantage is that the pain relief is more steady, without the bolus effect of the catheter method.”

However, commercialization of the product won’t come until much later down the road, Smith said, as they do not have any patents and lack pharmaceutical backing.

When asked about use in cats, Smith said that while intriguing, they have not yet conducted any studies. The focus right now is on dogs, she said.

For the upcoming clinical trials, Smith is recruiting cases that involve amputations of a forelimb. She plans to enroll 40 dogs.

Initial funding for the study, which was recently published in the October Journal of Veterinary Pharmacology and Therapeutics, was provided by the school’s Companion Animal Fund with additional funding from the Morris Animal Foundation and National Institutes of Health.

All of the Beagles involved in the initial trials have been adopted into loving homes.