EVALUATING THE USE OF MAGNESIUM TO CONTROL PAIN AND INFLAMMATION FOLLOWING SPINAL SURGERY IN DOGS

Complete Title: Investigation of the role of systemic intravenous intraoperative magnesium sulphate as anti-inflammatory and analgesic drug in dogs undergoing spinal decompression surgery for acute thoracolumbar disc herniation

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Purpose of the Clinical Study

Intervertebral disc herniation is the most common neurological disorder in dogs. Surgery is the mainstay treatment, but the resulting postoperative back pain can be complex and difficult to treat. Opioids are often used, but these drugs alone are sometimes not enough. In humans, magnesium has been shown to relieve neurological pain, decrease hospital stay and reduce opiate consumption. Not only is magnesium an important ion in the body but it also has anti-inflammatory properties, is inexpensive, very easy to administer, it is not a controlled drug or addictive, and side effects are extremely rare. By evaluating the use of magnesium in combination with standard of care opioids, we can evaluate its analgesic and anti-inflammatory effect.

Is Your Pet Eligible?

Dogs with a confirmed diagnosis of acute intervertebral disc herniation and interested in pursuing surgery.

Visits / Samples Required

Additional blood samples (4x over 2 days) will be collected as part of the study. The study will be completed 2 days after surgery, which is the typical recovery time in hospital following spinal surgery.

Financial Incentives

The costs associated with additional blood sampling for inflammatory markers and magnesium levels are covered by the study.

This study is generously supported by:









Questions about this study? Please contact the research team: epilepsy@uoguelph.ca