

Client Information:

Neurologic Surgery Complications

UNIVERSITY OF MINNESOTA
VETERINARY MEDICAL CENTER

Your pet is scheduled to have a neurologic/spinal surgical procedure. Like all surgeries, neurologic procedures have risks as well as benefits. Factors such as underlying disease, excessive postoperative activity, trauma, or the severity of the disease being treated can all contribute to complications. Complications known to be associated with neurologic/spinal procedures include, but are not limited to:

Surgical Complications

Swelling/Edema – Tissues and blood vessels must be cut and manipulated during neurosurgery. This can cause swelling post-operatively.

Seroma/Hematoma – These are pockets of fluid and/or blood that can develop in an incision site. They most often occur when an animal is overactive too soon after surgery.

Infection – The bacteria always present on an animal's skin can infect a surgical site. Licking and chewing at the incision increases this risk. Other risk factors include diabetes, Cushing's disease, chronic steroid therapy, dental disease, cleanliness of the animal's environment, cleanliness of the surgical wound, and the extent of the procedure.

Wound Dehiscence – Animals can break down surgical wounds by licking or chewing the area, or by being overactive too soon after the procedure. Wounds that must be closed under tension due to swelling of muscles may be at increased risk for dehiscence. Factors such as Cushing's disease, steroid use, and diabetes may delay wound healing, and raise the risks of dehiscence.

Neurologic Complications

Exacerbation of Neurologic Signs – Worsening of neurologic deficits may be associated with diagnostic procedures (i.e. myelogram), patient positioning, and surgical manipulation. Patients with cord compression may be at an increased risk for deterioration. As some neurologic injuries are dynamic, the progression of neural injury may continue despite surgical intervention. Permanent paralysis can result in any patient with spinal cord or nerve trauma. Myelography can trigger seizure activity.

Lack of Response to Treatment – Failure of neurosurgical patients to respond to treatment may be associated with the severity or nature of the injury. There may be permanent damage to the nerve tissue due to the initial injury/compression. Surgery does not reverse any permanent damage to the spinal cord or nerves. Dogs with permanent paralysis of the hind limbs may also have urinary and fecal incontinence.

Recurrence of Neurologic Signs – Recurrence of signs may occur due to herniation of remaining disk material at the site or of disk material at a different sites or adjacent sites ("domino effect"), scar or hematoma formation at the surgical site causing cord compression, and instability of the spinal cord due to underlying disease.

Mortality – This risk, although low, is greatest in patients with neck versus lower back spinal cord injuries. Ascending/descending myelomalacia (progressive irreversible spinal cord damage) can progress to respiratory problems and death.