LUMBOSACRAL INTERVERTEBRAL DISK DISEASE

TREATMENT OF A SLIPPED DISK IN THE LOWER BACK

VSG®
Veterinary Specialist Group

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TREATMENT OF A SLIPPED DISK IN THE LOWER BACK

One of the most common causes of lower back pain in the dog is injury to the spinal cord from a slipped (ruptured) disk in the spine. This injury can cause permanent problems with normal activity and urination. Generally, treatment is required to reduce the amount of pain and the risk of permanent disability.

DISK FUNCTION

The intervertebral disk of the dog acts as a cushion between the spinal bones (vertebrae) to absorb the shocks and movements of normal activity. The normal disk is like a "jelly doughnut" with a gelatinous centre and an outer ring of stronger fibrous tissue (Figures 1 & 2). In certain active breeds of dog (German Shepherd, Standard Poodle, Boxer, Labrador), the disk degenerates due to the "wear and tear" of normal activity. This can cause the outer part of the disk to bulge up putting pressure on the spinal cord and nerves. The pressure from the disk pinches the nerve against the surrounding bone causing pain and nerve damage. In some cases, the bones can be unstable, this can cause additional thickening of surrounding tissue and more obvious symptoms.

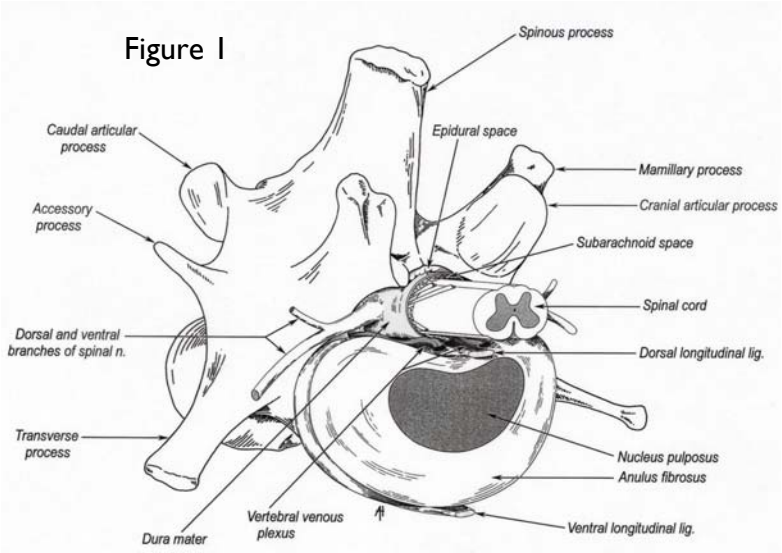
SYMPTOMS

The most common symptom is severe lower back pain. This can be seen as crying out, difficulty rising, reluctance to jump, unwillingness to exercise and a change in behaviour. These symptoms can often be misdiagnosed as hip arthritis. Dogs, generally, do not improve with standard arthritis treatment. In the most severe cases, dogs lose the nerve control to their back legs, bladder, and anus resulting in paralysis and leaking of urine or faeces.

PROGNOSIS

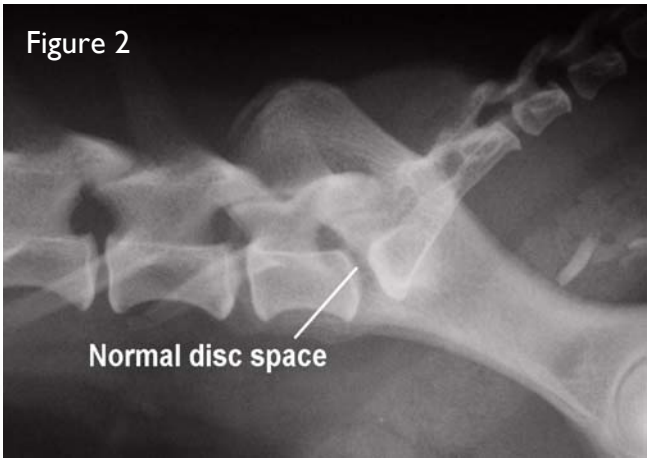
The prognosis for recovery is mostly dependent on the severity of the damage to the spinal cord and nerves. Surgical treatment is more successful when the only symptom is lower back pain.

Figure 1



Normal vertebra and disk

Figure 2



DIAGNOSIS

Knowledge of the dog's history is essential in helping make a diagnosis. A thorough neurologic examination is performed evaluating the head, all four limbs, and the spine. Pain can frequently be felt with pressure applied to the lower back or when lifting the tail. Anesthesia and X-rays (Figure 3) are necessary to show signs of a degenerative disk and to rule out hip dysplasia. To confirm the diagnosis, a **CT scan** (Figures 4 & 5) of the lower back is recommended. This test will allow observation of the bones, disk, spinal cord, and the nerves where they exit the spine through the nerve canals. Alternatively, a special X-ray test called a **myelogram** can be performed. The myelogram involves injecting dye along the spinal cord to confirm the presence of the slipped disk.

MEDICAL TREATMENT

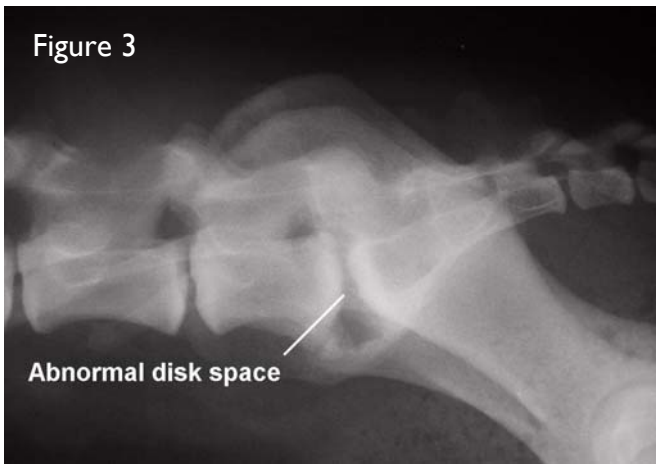
Some dogs with only mild symptoms will respond to medical treatment. Generally this involves two or three weeks of strict confinement to a cage followed by 3-4 months of restricted exercise. Pain relief (aspirin-like medication or cortisone) is given at the same time but this does not mean the dog can be more active. Dogs that do not improve or get worse with medical treatment are candidates for surgery.

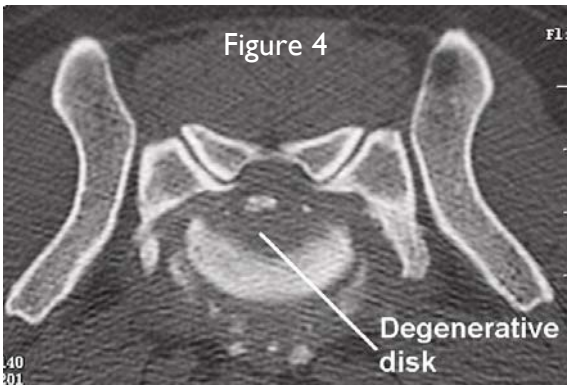
SURGERY

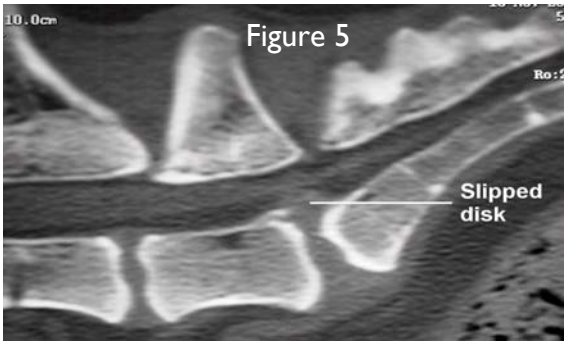
Dogs that have more severe symptoms are also candidates for surgery. The most common procedure is a **dorsal laminectomy**, which involves drilling away the roof of the vertebrae to relieve the spinal cord and nerve pressure as well as allow the delicate extraction of the disk material. The nerve canals can be enlarged to relieve further nerve pressure. For dogs with instability of the vertebrae, additional surgical stabilization may be performed. This is done using bone screws or pins and bone cement.

RESULTS

Dogs that have pain as their only symptom prior to surgery have a 95% chance of improvement following surgery. Complete healing of the spinal cord and nerves can take up to six months to occur. Dogs with more severe symptoms may not completely recover but should be free from pain.







POSTOPERATIVE CARE

EXERCISE CONTROL

To allow the spine to heal following the surgery, complete restriction of exercise is necessary for the first 3 weeks. If your dog has had additional stabilization then the exercise restriction should last 6 weeks. Your dog can be walked on a lead for toileting. Light (5-15 minutes) lead walks can begin after 3 weeks.

BANDAGE AND SUTURE REMOVAL

A bandage is generally placed over the operated site to limit infection. This bandage should be removed 4-5 days after surgery. The skin stitches need to be removed 10-14 days following surgery. These tasks can be done by your regular veterinarian. Please call our clinic if there is any swelling, discharge or redness around the stitches.

BLADDER MANAGEMENT

Some dogs have lost the ability to control urination after surgery. If the bladder is not emptied completely, then infection can develop. You may need to assist your dog with urination. With your dog lying or standing place your hands in a "prayer-like" fashion behind the last ribs. Apply equal inward pressure and gently expel the urine. Several attempts may be necessary to be successful.

MEDICATION

Most dogs are sent home with medication for additional pain relief. Sometimes, antibiotics are also dispensed. Give the medications as prescribed. Further pain relief can be prescribed if necessary.

PHYSIOTHERAPY

Physiotherapy is an important part of your dog's recovery. For the first 3 weeks after surgery this should consist of a warm compress applied to the region of the stitches for 15 minutes followed by gentle massage of the muscles. This can be followed by gentle flexing and extending of the legs.
After the spine has healed, your dog can begin more active physiotherapy with regular controlled exercise. Running without leash control is recommended for only short periods. Regular swimming is an excellent way of providing active exercise without spinal stress.

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