

Fibrocartilaginous Embolism (FCE)

What is it?

FCE, also known as Fibrocartilaginous Embolic Myelopathy, causes sudden weakness or unbalanced gait, or even paralysis, of the hind leg, or the hind leg and foreleg, often on one side of the body. The condition sometimes causes brief pain, which resolves within minutes or a few hours. The symptoms rarely worsen after the first day, and often partially or completely reverse with time, with supportive therapy.



What causes it?

The cause is due to tissue from the intervertebral disc of the vertebral column dislodging and causing a blockage (clot or embolus) of the blood vessels which feed the spinal cord. This can be thought of as a “stroke” or “heart attack” of the spinal cord.

Signs & Symptoms

Typically, this condition occurs suddenly and after physical exertion. The classic report is that the Newfoundland was playing outside, yelped, then was loses control and falls over, unable to get up. These symptoms may worsen in the first few hours, then stabilizes, then as mentioned above, may partially or completely improve in days or weeks. If this “stroke” occurs in the neck area, then it may affect the front and hind legs. If it occurs in the ribcage or lower back areas, then often only the back leg is affected.

In mild cases, the spinal cord is not severely injured, the dog often will appear weak, unbalanced and unstable, and may trip often. In more severe cases, the dog may be partially or completely paralyzed, and may lose control of his/her bladder, and lose pain sensation. The dog should not lose consciousness throughout this episode.

Testing

When the dog is brought to the veterinary clinic, the veterinarian will do a careful neurological exam, including assessing the dog’s mental status, gait, balance, sensation, reflex, and ability to feel pain. The ability to feel pain is often thought to be an important prognostic Indicator of how likely and completely is the dog likely to recover. (The complete loss of pain sensation is thought to portend a poor prognosis of recovery). The veterinarian will often do a series of tests, including blood work, X-rays, pyelogram, CSF tap, CT scan or MRI, to rule out (or prove the absence of) other conditions which affect the spinal cord and thereby produce similar symptoms. FCE is said to be a diagnosis of exclusion, which means that in order to make a diagnosis of FCE, the veterinarian has to rule out these other disorders (such as slipped disc or intervertebral disc disease, tumors, etc.).

Prognosis:

Prognosis depends on the severity of the signs and, to some extent, the location of the FCE within the spinal cord. Most dogs with FCE will begin to show improvement within 24-48 hours. Full recovery may take many weeks to months.

Treatment:

In the first days, it is likely that the dog will be hospitalized for observation, testing, and general supportive care. Surgery is not indicated for FCE. Treatment is in general supportive, and based on the severity of symptoms. Treatment may include anti-inflammatory medications in the first hours, strict crate rest in the early period, and later physical rehabilitation, which may include water therapy, and even acupuncture.

This information is not meant to be a substitute for veterinary care.

Always follow the instructions provided by your veterinarian.

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