

Fibrocartilaginous Embolism (FCE)

Information Sheet

Southern Counties Veterinary Specialists Specialist Referral Service

What is a Fibrocartilaginous Embolism (FCE)?

An FCE occurs when a piece of fibrous cartilage causes a block to blood vessels to an area of the spinal cord. The fibrous cartilage originates from the soft centre of the intervertebral disc (the nucleus pulposus). It is commonly compared to 'stroke' in the spinal cord. The altered blood flow to the spinal cord causes a lack of oxygen to the neurons and they can become dysfunctional and lead to the clinical presentation associated with FCE.

What are the signs of an FCE?

Clinical presentation will vary depending on the site of the embolism and the corresponding nerves related to that part of the spine. Any breed or age can be affected, but it is most often associated with young or middle aged non-condrodystrophic large dog breeds. An FCE commonly occurs during an active episode involving running or jumping. Although initially the dog may seem painful, later there is typically no pain associated with and FCE. Signs are a sudden onset of one sided limb dysfunction, however this may vary from paresis (weakness) to paralysis, and can affect one limb, one side of the body or both pelvic limbs.

How is FCE diagnosed?

The clinical history will guide our specialist neurologists to the presumptive diagnosis of an FCE, however diagnostic imaging will confirm this. At SCVS we have radiography, MRI and CT scanners, however MRI is most commonly used in these instances.

What is the treatment for FCE?

Surgery is not indicated in the management of an FCE. Physiotherapy is the primary treatment, supportive care from our experienced nursing team is also important to the continued recovery

> of your dog. Our specialist team of neurologists, nurses, veterinary physiotherapists and hydrotherapists all work closely to ensure the best recovery possible.

> Physiotherapy is performed throughout the day while your dog is an inpatient at SCVS to ensure joint range of movement, minimise contractures forming, resolving muscle tightness and facilitate neurological recovery. Depending on the severity of the embolism your dog may stay as an inpatient for a few days up to two weeks. When your dog is discharged you will be offered a discharge meeting with one of our veterinary



physiotherapists to discuss the ongoing care and rehabilitation plan, with exercises to continue at home to maximise neurological recovery.

What is the prognosis of FCE?

The prognosis is good following an FCE, but does depend on the severity of the initial injury and extend of damage to the spinal cord. The rate and extent of recovery is variable and can be difficult to establish immediately after the initial onset. Good improvements are seen rapidly for the first few weeks, but a full recovery can take several months.

Our dedicated team of veterinary physiotherapists can continue to see your pet as an outpatient to continue your dogs' rehabilitation, alongside use of the underwater treadmill where indicated. If you live far away or cannot attend SCVS for further out-patient care we can assist in finding you a veterinary physiotherapist close to you.

Whilst the cause and pathophysiology is not fully known, it is not common to experience any further FCE.





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