

Syringomyelia & CKCS



Syringomyelia (SM) and Chiari-like malformation (CM) form a serious and widespread condition in cavaliers. Researchers think about 90% of CKCS have the malformation and predict from 30-70% will eventually develop syrinxes (SM), making CM/SM a major concern for cavalier owners, breeders and vets.

Chiari-like malformation (CM) is a condition characterised by a mismatch between the caudal fossa (skull) volume and its contents, the cerebellum and brainstem. The neural structures are displaced into the foramen magnum obstructing cerebrospinal fluid (CSF) movement. A consequence of this is **syringomyelia (SM)** where fluid filled cavities develop within the spinal cord. The primary clinical sign of CM/SM is pain, either due to obstruction of the CSF pulse pressure and/or a neuropathic pain syndrome due to damage to the spinal cord dorsal horn. Progression of disease is variable. Some dogs remain stable or deteriorate minimally over years. Other affected dogs can be severely disabled by pain and neurological deficits within 6 months of the first observed signs.

DIAGNOSIS

Magnetic resonance imaging (MRI) is essential for diagnosis and determining the cause of SM). Maximum syrinx width is the strongest predictor of pain, scratching behaviour and scoliosis; 95% of CKCS with a maximum syrinx width of 0.64cm or more will have associated clinical signs.

TREATMENT

The main treatment objective is pain relief. The most common surgical management is cranial/cervical decompression. There are three main drugs used for treatment of CM/SM: drugs that reduce CSF production; analgesics; and corticosteroids. If the dog's history suggests postural pain or discomfort relating to obstruction of CSF flow then a trial of a drug which reducing CSF pressure, e.g. furosemide, cimetidine or omeprazole, is appropriate. However, for dogs with signs of neuropathic pain, a drug which is active in the spinal cord dorsal horn is more likely to be effective. Because gabapentin has established use in veterinary medicine we suggest that this is the drug of first choice but amitriptyline or pregabalin may also be suitable. Corticosteroids are an option if pain persists.

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More diagnosis and treatment information:

www.veterinary-neurologist.co.uk/faq.htm

www.smcavalier.com

Typical symptoms (one or more may occur):

- **excessive scratching**, especially at ears, head, face, neck, shoulders
- **'air scratching'** (the hind leg makes no body contact, typically when walking the dog)
- **scoliosis** (especially in young dogs)
- **weakness** in the legs
- **pain**, especially around the head, spine and/or legs
- **sudden yelping** for no reason

SM is regularly misdiagnosed as allergies, disk disease, and ear problems, leaving dogs in chronic pain. It can affect most small breeds!