

## Syringomyelia Study

Chiari-like malformation and syringomyelia (CM/SM) is a prevalent condition amongst Cavalier King Charles Spaniels (CKCS). SM is characterised by the formation of fluid filled cavities within the spinal cord due to an alteration in the flow of cerebrospinal fluid (CSF). This alteration in CSF flow is thought to be caused by the base of the skull being overly small, a common feature in CKCS; this is one explanation as to why the disease is frequently present in this breed.

The first signs of CM/SM are normally seen between 6 months and 2 years of age although dogs of any age may present with clinical signs. There are several clinical signs that are characteristic of the disease:

Scratching – this is usually to one side of the body in the area of the neck, ear, shoulder and sternum. Often the dog will scratch while moving and without actually making contact with the skin.

Pain – this is typically localised to the neck region but can be intermittent and sometimes difficult to localise to a specific region.

Sensitivity to touch – dogs that are affected with this disease may be overly sensitive to touch on one side of the neck, head, shoulder or sternum.

The dogs may also present with seizures but idiopathic epilepsy is common within the breed so this association may be circumstantial rather than indicative of CM/SM. Therefore it is essential that for an accurate diagnosis magnetic resonance imaging (MRI) is performed to evaluate any bone malformations and also identify any fluid filled cavities (syrinxes) that may be present.

The condition can be managed medically and surgically. Surgical management is often indicated when pain relieving medication does not provide adequate relief. However surgical treatment does not always prevent recurrence of clinical signs of pain. Medical treatment ranges from pain relief medication, corticosteroids and other drugs that reduce cerebrospinal fluid production. Unfortunately these drugs often do not adequately control the pain associated with the disease. It is for this reason that a more efficacious drug therapy is needed.

The Royal Veterinary College Neurology and Behaviour Specialists (Dr Kate Chandler, Dr Holger Volk and Jon Bowen) in collaboration with Dr Clare Rusbridge, specialist neurologist from Stone Lion Veterinary Clinic and Dr Nick Jeffery, specialist neurologist from Cambridge Veterinary School is conducting a study on CM/SM in Cavalier King Charles Spaniels. The project will examine some aspects of pain assessment and treatment with a novel therapeutic agent which is hoped will provide improved relief from the pain associated with this condition.

Before a CKCS can be enrolled into the study they will need to have been diagnosed by MRI scan with CM/SM within the last 8 months. This evaluation can be at any of the 3 centres listed above. They must have some clinical signs of scratching, pain,

and sensitivity to touch. They need to be aged 1yr – 10yrs and weigh between 4Kg and 12Kg. Dogs currently on other pain medications are still eligible but a changeover programme will be implemented. Dogs intended for breeding or with concurrent medical conditions including ear disease, grade II heart murmur and epilepsy are not eligible for the study. As we appreciate your time and effort to take part in such a study, there is an incentive of the neurological evaluation being offered free of charge (and if eligible for study screening, after the neurological exam, the MRI and cerebrospinal fluid analysis is also free of charge). At the end of the study a voucher for veterinary care will be provided to go towards treatment of the condition.

Dogs enrolled onto this study will be randomly allocated the new therapy or placebo, in a 1 to 1 ratio. A placebo is a product which looks like the investigational product, but contains no active ingredient. You and the Veterinary Surgeon will not know which treatment your dog is receiving; this is known as a “masked” study. This helps the accuracy of the drug evaluation. Your dog will still receive basic pain medication with carprofen (Rimadyl®) regardless of whether they are taking the new drug or the placebo.

Once the diagnosis of syringomyelia has been confirmed by MRI, a blood sample will be taken to assist us in determining that your pet is in good general health. Firstly your dog will be prescribed carprofen (Rimadyl®) and will need to take this treatment twice daily for between seven and fourteen days. Your pet will then return to The Royal Veterinary College and will be enrolled onto the study and will be allocated either the new therapy or placebo. They will take this medication twice daily in addition to the carprofen for 14 days. There would be two further follow-up visits- one after 7 days of treatment and one after 14 days of treatment (end of study visit).

This study has been approved by the RVC Ethics Review Panel and appropriate government regulatory bodies. It will be carried out appropriately to ensure the welfare of your pet while on the study and the accuracy of the trial. No charge will be made for the consultations, treatment or procedures in relation to this study. Personal data about you and your pet will be collected, processed but only used for the administration of this study and for regulatory requirements in connection with this study. You will not be referred to by name or identified in any report or publication. If you have any concerns, you will be free to withdraw your pet at any time and this will not bias the future veterinary care of your pet. At the end of the study you will be referred back to your local veterinarian or referring specialist and receive advice as to the ongoing care of your pet in relation to SM.

If you are interested in participating in such a project aimed at improving treatment and knowledge of SM please contact:

The Clinical Investigations Centre  
Veterinary Clinical Sciences  
Royal Veterinary College

Tel: (01707) 666605 E-mail: [cic@rvc.ac.uk](mailto:cic@rvc.ac.uk)

[www.rvc.ac.uk/Hospitals/QMH/Referrals/ClinicalTrials/Documents/ClinicalTrials](http://www.rvc.ac.uk/Hospitals/QMH/Referrals/ClinicalTrials/Documents/ClinicalTrials)