BUSH VETERINARY NEUROLOGY SERVICE

Caudal Occipital Malformation Syndrome

Who can be affected?

This disease is common in the Cavalier King Charles Spaniel but has also been observed in many other small breeds like the Pomeranian, Yorkie, Malteses, Japanese Chin, Brussel Griffon and others.

Screening

Bush Advanced Veterinary Imaging in conjunction with Bush Veterinary Neurology Service offers a screening test for breeders to try to identify dogs that have COMS but are apparently normal. This service should assist breeders in reducing the incidence of this debilitating disease. More information on this screening test can be found at www.bushvetimaging.com/syringomyelia.

Cause

Caudal Occipital Malformation Syndrome (COMS) is also known as Chiari-like malformation with syringomyelia. This disease affects the spinal cord and sometimes the brain. Under normal conditions cerebrospinal fluid flows smoothly from the brain into the spinal cord. In this disease there is a pinching at the beginning of the spinal cord that causes abnormal fluid flow within the spinal cord and spinal cord lining (meninges). This results in a cavity of fluid within the spinal cord (syringomyelia). Syringomyelia affects the part of the spinal cord (dorsal horn) that carries sensory information from the body to the brain. In COMS, syringomyelia causes abnormal handling of this information leading to neuropathic pain.

The most common sign of disease include pain manifested as spontaneous yelping out, yelping out when being picked-up, holding the head low, lethargy (as though there is a head ache) and spontaneous, excessive itching of the ears and neck. Less common observations include weakness (paresis), incoordination/poor balance, episodes of weakness and poor balance, seizure, and an inability to blink. This disease has also been identified in dogs that are reported to have no symptoms. However, because this defect exists at birth it may be hard for an owner to know what is truly normal for a particular patient. Based on our clinical experience we believe that all dogs with COMS have some degree of discomfort or headache.

Diagnostics

The diagnosis is made by visualizing the defect with MRI and also ruling-out other common diseases that can cause the same clinical signs. Because this defect is commonly identified and is not always the cause of significant problems, a spinal tap is often performed to address the possibility of another common disease in small breed dogs called meningoencephalitis. Please see our site at www.bvns.net/disease for more information on meningoencephalitis.

Progression

The prognosis with this disease is good, especially with an early diagnosis and surgical intervention.

Treatment

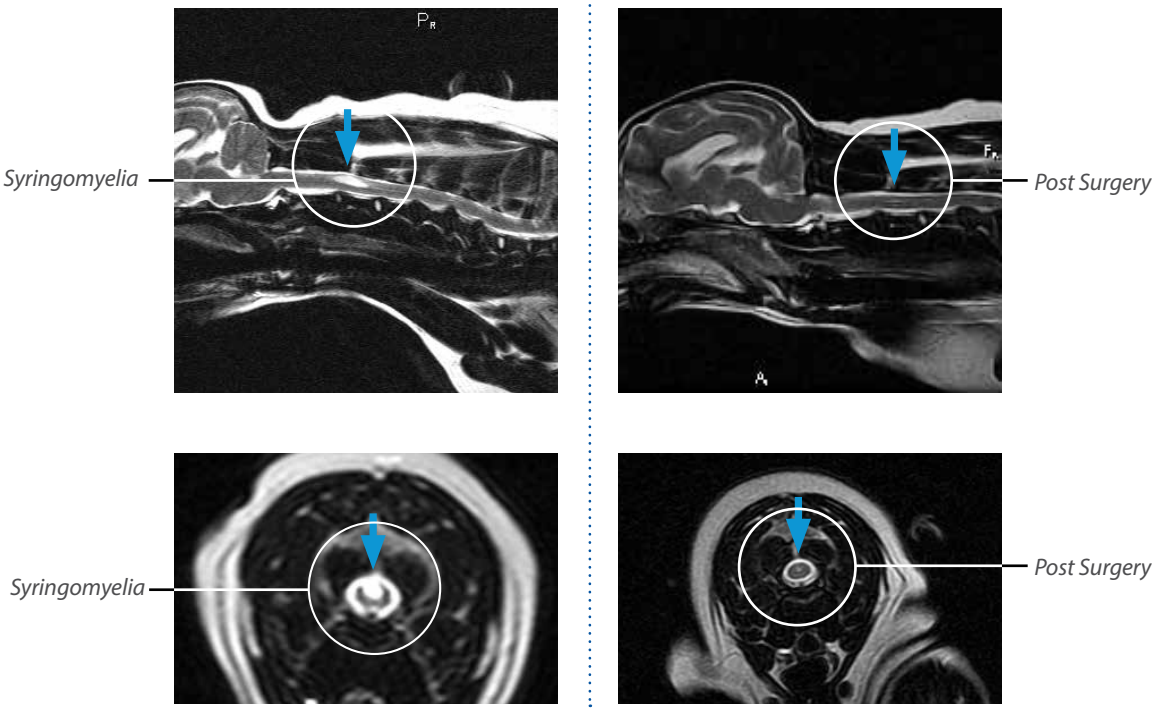
Medical management of this condition is often with pain modulators like gabapentin (Neurontin) or pregabalin (Lyrica) for neuropathic pain, and other pain medication (opiates, NSAIDS or steroids) and medication to try to decrease fluid production (steroid, omeprazole (Prilosec), furosemide (Lasix)).

Surgery for this condition is called a foramen magnum decompression (FMD) and has the goal of alleviating the pinching of the spinal cord, smoothing out the flow of spinal fluid, and therefore eliminating the impetus for neuropathic pain and weakness. A FMD has a success rate of about 90% to improve or resolve the pain and weakness. Although there is a reported recurrence rate as high as 25% following surgery, we believe the rate is much lower, especially when a substance like SIS is placed over the surgical site to prevent scarring.

This condition is often progressive and surgery is recommended because the risks are low and the procedure corrects the problem.

Pre surgery:
T2 weighted MRI

Eight months post surgery:
T2 weighted MRI



BUSH VETERINARY
NEUROLOGY SERVICE

To learn more about neurologic diseases, treatments, medications and our practice, please visit www.bvns.net.