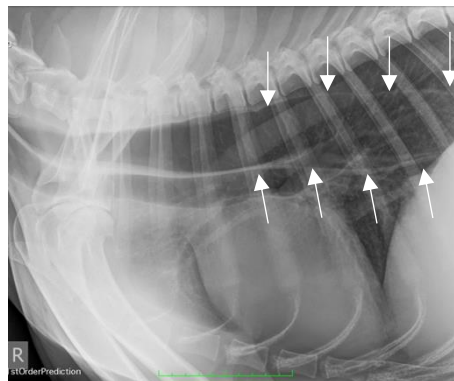


SEARCH FOR ANTIBODIES IN 'SERONEGATIVE' MYASTHENIA GRAVIS IN DOGS

Research project under the direction of An Vanhaesebrouck (Cambridge University)
- in collaboration with Oxford University, and several referral centres



Any breed can be affected by myasthenia gravis or megaesophagus. However, Golden Retrievers are overrepresented.



Chest X-ray showing air-filled, dilated esophagus, called megaesophagus.

Myasthenia gravis is characterised by fatigable skeletal muscle weakness. Many dogs also have megaesophagus, while some have megaesophagus alone. Acetylcholine receptor (AChR) antibody testing via radioimmunoassay (RIA) is the gold standard for the diagnosis of myasthenia gravis. However, a proportion of dogs have no detectable antibodies on the current RIA, despite being highly suspected for myasthenia gravis. Some of these dogs might have low-affinity antibodies against AChRs or other neuromuscular junction proteins, as in humans. We are currently developing canine cell-based assays to search for the presence of low-affinity antibodies in serum of highly suspected cases. An improvement in antibody detection would increase the number of dogs correctly diagnosed that can receive prompt and targeted treatment, resulting in a better outcome.

We would like to ask our colleagues to contact us if they see a dog that is highly suspected for myasthenia gravis, but negative on RIA. If you are an owner of a suspected dog, please make your veterinarian aware of this project. We are interested in myasthenia gravis and particularly welcome referrals of suspected cases at the Queen's Veterinary School Hospital. We offer routine first consults at half price for dogs highly suspected of myasthenia gravis*. We can also accept the excess of serum taken from suspected cases seen by other referral centres.

The development of the novel cell-based assay is funded by Petsavers and Petplan Charitable trust. As the project is a research study, results of the cell-based assay will not be immediately available to the pet owner or veterinarian. However, contributing to this study is expected to benefit future dogs by improving the diagnosis of myasthenia gravis and megaesophagus. In future, cell-based assays will likely be used as a second-line antibody test, when RIA results come back negative.

Any questions, please contact: myasthenia@vet.cam.ac.uk.

*To be eligible for the half price consult, the suspicion of myasthenia gravis needs to be confirmed via telephone conversation by your referring veterinarian with the QVSH Neurology team prior to the consult (inclusion criteria consist of muscle fatiguability that clearly improves with rest, with or without regurgitation). All other costs (related to diagnostic tests, hospitalisation, treatment, and other conditions or complications) will be charged at usual prices.