

LATEST NEWS

Friday 4 January 2013

POST EXERCISE DISTRESS SYNDROMES

Greyhounds Australasia (GA) in conjunction with Australian Greyhound Veterinarians (AGV) and The University of Melbourne wish to update participants following receipt of a report prepared by Dr Steven Karamatic regarding commissioned research into Post Exercise Distress Syndromes (PEDS) in greyhounds.

The objective of the research was to examine PEDS, which is a term used to describe a variety of syndromes seen after greyhounds exercise, including the condition termed 'thumps' (diaphragmatic flutter) and exercise-induced ataxia. The main objectives of this research were:

- To determine the prevalence of all post exercise distress syndromes (PEDS) in WA, SA and VIC and correlate the occurrence to race performance.
- To document the occurrence of PEDS in terms of physical findings and accurately describe these.
- To ascertain whether any commonality (preparation, biochemical abnormality) occurs in dogs that suffer from PEDS compared to dogs with similar preparations that don't suffer from PEDS.
- To attempt to determine the aetiology of PEDS based on metabolic screening or other diagnostic modalities.
- To define accurately the different categories of post-exercise distress, and attempt to categorise or elucidate potential aetiologies.

Dr Karamatic has now finalised this research but will be continuing to investigate PEDS as part of his PhD studies. He is pleased to share the following key information with industry:

- The 4020 starts in the observational study population represented 2813 greyhounds, 1009 trainers, 536 races, 52 race meets and 48 race dates. The starts were recorded at 4 metropolitan racetracks and 7 country racetracks in 3 states of Australia.
- In the study, 962 starters had diaphragmatic flutter/thumps (23.9%), 16 starters showed exercise-induced ataxia (0.4%).
- Thumps as a sole clinical sign in a greyhound following exercise is a common, self resolving occurrence affecting one in four greyhounds. It is unlikely to result in reduced performance or be distressing to the animal, but can be seen with other clinical signs after exercise in distressed or poor performing animals.
- Greyhounds that developed thumps were more likely to be female, younger, finished in the first three placings, raced over longer distances and been observed with thumps at a previous start.
- Complex, multi-factorial, acid-base physiology is most likely responsible for thumps after exercise. At 10-minute post-exercise sampling ionised calcium, venous pH and bicarbonate had decreased significantly but there was no difference between dogs with thumps or without. The most significant change was a lower pCO₂ (partial pressure of carbon dioxide), suggestive of a greater respiratory compensation from the metabolic acidosis induced by exercise. Low pCO₂ occurs in cases of hiccups and has been suggested to cause an increase in phrenic nerve burst amplitude in people.
- Exercise-induced ataxia is most likely metabolic and cerebellar (brain stem) in origin given the clinical signs but further research is required. Of concern are dogs with multiple affected littermates and affected offspring. Comprehensive investigations have ruled out, or made less likely, a number of common causes for the ataxic condition. While further clinical investigative pathways could be followed, it would appear there is a strong genetic link.



Dr Karamatic did advise GA that:

“The project has been very informative for industry and veterinarians, and the greyhounds will ultimately benefit from the important findings surrounding various post exercise conditions. I thank all industry partners who have supported this study financially or in person through the presentation of their animals which will improve the health and welfare of all greyhounds. I do recommend that industry consider exploring the development of a genetic test for exercise-induced ataxia and consider collecting whole blood samples from greyhounds with conditions that could conceivably have a genetic component to store for future analyses.”

Mr Russell Ware, Chairman Greyhounds Australasia stated:

“The GA Board was encouraged by the level of investigation undertaken by Dr Karamatic, and we thank him for all his hard work over the past two years. The findings support the on-going health and well-being of greyhounds, and offers insights into avenues for further research.”

For any inquiries, please contact.

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