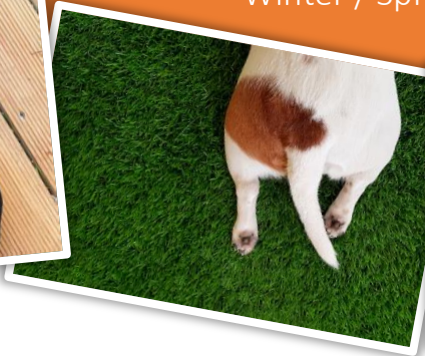


Four Leg News

Volume 12 / Issue 1

Winter / Spring 2023



THE COLD TAIL ISSUE

Are you like me? Have you wondered what is new is in the literature in regards to Cold Tail? I dove into the research to see what I could find. So, here is a synopsis of what we know! Have a nice casual read and enjoy the learning!

Cheers!

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Introduction

Cold tail, also known as limber tail syndrome, dead tail, limp tail, and acute caudal myopathy, is a condition that commonly affects working dogs / sporting dogs. This condition is characterized by the sudden onset of a painful, limp, flaccid tail. The tail may also be painful to the touch, and the dog may yelp or whine when the tail is touched or moved. In severe cases, the dog may exhibit signs of distress, such as panting, restlessness, and reluctance to move.

History and Incidence:



A common precursor of this condition appear to be due to swimming. One study (the Dogslife project) noted that 76% of cases were attributable to swimming. Additionally, 51% of the reported cold tail cases occurred in cold weather. Of the cases that did not result from swimming; all had experienced vigorous exercise, with the majority

being during cold and wet weather (Pugh et al 2016). Another paper noted additional predisposing factors to be extended cage transport, insufficient conditioning or fatigue (Steiss 2002).

Within a 5 year period, there were 53 tail-related incidents associated with 43 reported to the Dogslife project, with 6000 dogs enrolled at that time; giving an incidence rate of 0.7%. The average age at first report was 2.13 years. Of these 53 incidents, only 11 (all different dogs) required a veterinary visit. This indicates that studies using data from veterinary practices would be underrepresented.

There were no significant differences seen in sex, neuter status, coat color, height, weight, or levels of exercise; however more of these cases were working dogs, indicating a possible genetic influence (Pugh et al 2016; Harvey 2016).



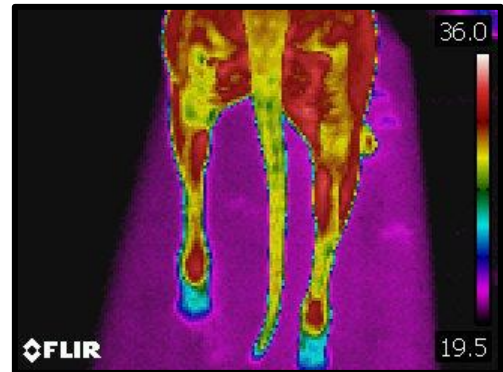
In the Pugh et al study (2016), 22 dogs had a single occurrence of limber tail, while 8 dogs had two, five dogs had three, two dogs had four, and one dog had about 30 occurrences. The duration of limber tail varied considerably between occurrences as well as between dogs. It was noted that for individual dogs with multiple episodes, the later occurrences were shorter than the earlier occurrences. The average duration was 3.5 days.

Pathology:

Cold tail is thought to be caused by damage to the muscles or nerves in the tail, which can result in inflammation and pain. Research has shown that dogs with cold tail often have elevated levels of the enzyme creatine kinase, indicating muscle damage (Levine & Levine, 2004). The condition is also known as acute caudal myopathy due to its similarity to other muscle diseases.

EMG findings of abnormal activity in the coccygeal muscles were seen in all affected dogs (Steiss 1999).

Infrared thermography showed a difference between control and affected dogs having two to 3 degrees below normal thermal gradients. In the acute phase, the sacrococcygeal area and tail was 2 to 3 degrees below than other body areas on the same dog. This suggests a reduction in vascular flow (Steiss 1999).

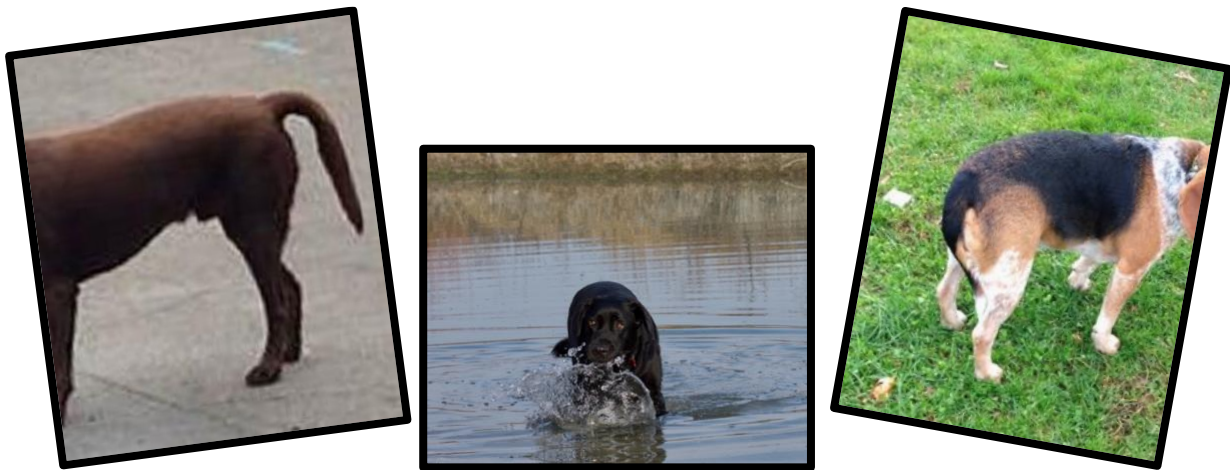


Histopathology of the dorsal tail muscles are mainly type I while lateral and ventral tail muscles tended to have both type I and II fibers. The changes seen in the two affected dogs that underwent muscle biopsies were mild with some fiber splitting and increased nuclei. The other two affected dogs showed lesions in various coccygeal muscles; often bilateral but sometimes unilateral, with the most severe lesions found in the intertransversarius ventralis caudalis muscles at all 3 levels (Steiss 1999).

A case report of an undocked 2-year old male neutered Doberman reported MRI findings that showed a well-circumscribed focal lesion affecting the sacrocaudalis dorsalis lateralis muscle. Pulse sequences showed a hyperintense rim surrounding an iso-hypointense centre. The hyperintense lesion rim was consistent with any process increasing vessel permeability or changing blood volume/flow; while the iso-hypointense centre may indicate myonecrosis or accumulation of proteinaceous material (Gomes 2019).

Treatment:

There is no specific treatment for cold tail, and the condition usually resolves on its own within a few days to a week. The main goal of treatment is to manage the dog's pain and discomfort. Treatment includes rest to allow for muscle healing and temporary use of anti-inflammatory medication during the acute phase (Steiss 2002). In the case report of the Doberman, Meloxicam was administered to the dog and exercise was restricted for a week. Clinical signs resolved a month later and no recurrence was seen for 22 months (Gomes et al, 2019).



Prevention:

Preventing cold tail is not always possible, but there are some measures that can help reduce the risk. Gradual introduction to strenuous activities, proper warm-up and cool-down routines, and limiting the amount of time the dog spends in cold water might help prevent cold tail. During travelling, regular breaks to let dogs out of their crates reduces the incidence of cold tail (Steiss 2002). Additionally, providing the dog with a warm and comfortable environment may help reduce stress and prevent the onset of cold tail.

References:

1. Gomes SA, O'Cathasaigh M, Alves L. Magnetic resonance findings of presumed limber tail syndrome (caudal myopathy) in a Doberman. J Small Anim Pract. 2019 Apr;60(4):261.
2. Harvey N. What is causing limber tail syndrome in Labrador retrievers? Vet Rec. 2016 Sep 17;179(11):273-4.
3. Levine, J. M., & Levine, G. J. (2004). Cold tail in dogs: a possible marker for elevated body temperature. Journal of the American Animal Hospital Association, 40(2), 109-113.
4. Mosley, C. A., & Lewis, R. E. (2010). Limber tail syndrome in dogs. Compendium (Yardley, PA), 32(5), E1-E3.
5. Pugh CA, de C Bronsvoot BM, Handel IG, Query D, Rose E, Summers K, Clements DN. Cumulative incidence and risk factors for limber tail in the Dogslife labrador retriever cohort. Vet Rec. 2016 Sep 17;179(11):275.
6. Steiss J, Braund K, Wright J, Lenz S, Hudson J, Brawner W, Hathcock J, Purohit R, Bell L, Horne R. Coccygeal muscle injury in English Pointers (limber tail). J Vet Intern Med. 1999 Nov-Dec;13(6):540-8.
7. Steiss JE. Muscle disorders and rehabilitation in canine athletes. Vet Clin North Am Small Anim Pract. 2002 Jan;32(1):267-85.



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