ANATOMY, BIOMECHANICS, PHYSIOLOGY, DIAGNOSIS AND TREATMENT OF TERES MAJOR STRAINS IN THE CANINE

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Signalment: 14 athletic dogs; 5 Females / 9 Males, breeds included 4 Border Collie crosses, 3 Shetland Sheepdogs, 2 Rottweilers, 1 Labrador Retriever, 1 Malamute, 1 Australian Shepherd, 1 Irish Setter, and 1 Boston Terrier.

History: All dogs presented with 'open diagnoses' of front leg lameness. The symptoms were on-again off-again lameness of 2days to 4 years in duration. Veterinary recommendations included rest in all cases and anti-inflammatory medications in half of the cases. Lameness was reduced by this treatment, however in all instances dogs returned to lameness when they were taken off rest and allowed to resume previous activities or competition.

Physical Examination Findings: All dogs presented with mild to moderate front leg lameness. All dogs displayed mild discomfort to fully extend the shoulder (allowing full scapulo-thoracic mobility) and had moderate to severe tenderness on palpation (assessed by patient yelping & muscle twitching) of the teres major muscle and it's common tendon of insertion with latissimus dorsi. 4 dogs displayed no other physical findings and 10 dogs displayed secondary findings. 8 of the dogs had x-rays which were all negative for joint or boney abnormalities in the front limbs.

Diagnosis: Acute, chronic or acute exacerbation of chronic strains of the teres major muscle.

Problem List: The teres major muscle acts to flex, adduct, and internally rotate the forelimb (at the shoulder) from an outstretch position. Mechanism of injury is when a dog runs, plants a forelimb and turns in the opposite direction (usually slipping during this movement) as when chasing a ball or when competing in agility on slippery surfaces. All muscular and soft tissue injuries should be properly identified and rehabbed so as to not only reduce inflammation but more importantly to promote collagen orientation to optimal (strong) orientation patterns during the fibroblastic / regenerative phase of soft tissue healing. Identification of the problematic muscular structure causing the lameness and soft tissue injury / healing principles need to be added to ensure a gradual, graduated return to full functioning.

Rehabilitation Treatment: Treatment included ultrasound, stretching, balancing exercises, leash walking, gait retraining, & acupuncture point stimulation. As the lameness improved some targeted 'structure stressing' activity was allowed and small amounts of off-leash or 'competition type' activities were prescribed after a proper warm up of the musculature. Owner education and compliance was a large component in the treatment and success of these cases. Most dogs were treated once or twice a week and discharged when they regained full range of motion, sound gait patterns and were pain free on palpation. Treatment programs lasted for as short as 4 weeks or as long as 4 ½ months (before return to activity) depending upon chronicity of the condition.

Follow Up Assessment: All dogs were reported to be sound and at full previous activity levels (at the time of this writing) for a minimum of 3 months and up to 3 years.

References:

1. Magee, David J. Orthopedics. Conditions and Treatments. Fourth Edition Revised. Dept of Physical Therapy. Faculty of Rehabilitation Medicine. Copyright 1986.
2. Miller, Malcolm J.: Guide to the Dissection of the Dog. 1955, Edward Bros, Inc., Ann Arbor, Michigan.

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