Preliminary Evaluation of Shoulder Abduction Restraints.

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We are in the development phase of a new neoprene-polyester shoulder restraint device that has been very successful in our patients over the last year. These restraints are currently being used in patients with medial shoulder instability. Three subgroups of patients with medial shoulder instability have been treated successfully at this time: 1) patients managed conservatively 2) patients treated through arthroscopic radiofrequency medial capsular shrinkage and 3) patients treated with medial surgical reconstruction and stabilization.

The restraint device consists of removable neoprene/polyester sleeves that attach over the shoulders of the patient and Velcro securely to each forelimb. An additional chest strap can then be applied to secure the device to the patient. Presently we are using 1-2 inch double-sided Velcro strips as a hobble strap to attach to the limbs together. Two Velcro strips are used to form the hobble strap, the first is in a circumferential manner around both elbows (which have Velcro attachment) followed by a perpendicular wrap securing the strap. We are limiting the elbow to elbow distance to 6-8 inches dependent on the size of the patient.

Most patients are able to bear weight immediately and adapt rapidly to the restraints. The restraints limit abduction, flexion and extension of the shoulder, but allow weight-bearing. The patient's gait is altered with a short limited stride, but they can be worn continuously for several weeks to months with minimal irritation (much less complication than previous slings and hobbles that we have tried). In patients that have undergone arthroscopy, the restraints can be worn immediately. In patients that have undergone surgical reconstruction, we place these patients in a Velpeau for 2-4 weeks followed by the abduction restraints for another six weeks of continuous wear.

Many notable advantages are evident with this restraint as follow: 1) less bandage irritation, 2) can be worn for longer periods, 3) requires less frequent bandage changes and adjustments, 4) owners can adjust or remove and replace, 5) allows easy removal for physical therapy, 6) feasible to use with patients who live great distances from your clinic, 7) washable, 8) less technical difficult than other bandages, 9) less muscle atrophy with the ability to provide rehabilitation with controlled use of the limb. The abduction restraints can be used for several months, however it does alter gait and it is not intended to be worn permanently.

Our follow-up evaluation at this point indicates that patients can wear these "continuously" for ten weeks (we haven't had a reason to maintain them any longer than that). It appears that removal of the restraints every two weeks for washing, repositioning and grooming of the limbs is beneficial in maintaining the restraints for longer periods. With the present design, removal is most easily achieved by removal of the device at the Velcro connection dorsally over the back. However, design changes to be incorporated include a more permanent connecting hobble strap, since in some patients it is difficult to thread their feet back through the leg sleeves.

Presently additional modifications are being planned including a more permanent hobble strap between the elbows and an additional available strap through the axilla. The hobble strap can easily have some elasticity incorporated and length can be altered through recovery, although it has been very essential to this point. The limb conformation appears acceptable for most breeds. The neoprene-polyester material provides good comfort, wear and adaptability especially in fit. We are seeking you input and advice. We can provide client questionnaires.

Leggs are available from Jorgensen Laboratories 970-669-2500 Toll Free: 800-525-5614