LETTERS TO THE EDITOR

Arthroscopic management of a lateral glenohumeral ligament rupture in two dogs. Reply to a comment

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Dear Sir,

We are grateful for the opportunity to respond to the letter to the editor by Ridge (1). We welcome active discussion over these cases because, to our knowledge, it was the first time arthroscopic suturing has been reported in the veterinary literature.

The authors have started using a 'hanging limb' position for all of the cases where we may need to gain access from the medial side of the joint. However, we still use a lateral portal for a first arthroscopy in the majority of cases. Whilst it is possible that some pathology of the lateral compartment is missed during lateral portal arthroscopy, we find that with a combination of craniolateral and caudolateral portals, and with the use of the viewing angle of the telescope, adequate inspection and recording of images of the lateral capsular structures is routinely achieved.

In our experience, the animals we see with instability of the shoulder are usually high activity level dogs that perform repetitive activities, such as retrieving or agility exercises. The exact causes of the ligament pathologies are not known in most cases although we speculate that the repetitive nature of their work is a significant risk factor. McKee and others (2) discussed the possibility of ossification of the infraspinatous bursa as a cause of lameness, but also conclude that other pathologies present may be the major reason for the pain. There was not any evidence of infraspinatus bursal ossification in our cases, hence we feel that it is unlikely that any form of compressive injury to the ligament was the cause of the pathology.

With regard to superior labral anterior to posterior (SLAP) lesions in humans, it has been shown that significant deceleration forces in the throwing arm are due, in part, to contracture of the long head of biceps, which has a direct attachment on the labrum of the shoulder. This causes a significant shear stress on the labrum, which is then torn from part of its osseus attachment. The labrum in the dog is much less well developed than in humans so it is difficult to compare these aetiologies.

Physiotherapy is an area of veterinary medicine that is rapidly gaining in popularity and shows much potential, although, as yet, a lot remains unproven. A more aggressive rehabilitation regimen may have worked in the two cases that we reported, although given the nature of these dogs it would have been hard to implement a controlled programme. Hobbles and slings were not used post-operatively for the same reason. A subsequent 'second look' arthroscopy to confirm the integrity of the suture would have been useful but clinically these dogs were sound and repetition of the arthroscopy was not justifiable. It is possible that the suture had become detached. The reason for the improvement in the lameness would be difficult to understand unless periarticular fibrosis had progressed to a point that stability of the joint was achieved. The same conservative management prior to surgery had had no effect.

This was the first reported case of this technique, and, as such, is still being developed. The push lock anchor method is certainly a more rapid alternative to the technique that we described and we plan to use such an approach on similar cases in the future. However, the suture anchors used as we described still remain a defendable option.

In the cases reported, we used Smith and Nephew arthroscopic cannulae which are manufactured from a pliable plastic and therefore do not tend to damage the articular cartilege to any great degree, compared to more rigid cannulae. Our experience of the Arthex Passport cannulais that it is not that easy to use in larger canine shoulders – placement and locking of the cannula is difficult and it is too short for larger animals. Once locked in the correct location it does have advantages over the more rigid systems.

References

1. Ridge PA. Arthroscopic management of a lateral glenohumeral ligament rupture in two dogs. A comment. Vet Comp Orthop Traumatol 2009; 22: 81.
2. McKee WM, Macias C, May C et al. Ossification off the infraspinatous tendon-bursa in 13 dogs. Vet Rec 2007; 161: 846–852.

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