Oral presentations

Efficacy of a single intra-articular administration of autologous platelet therapy in police working dogs with hip osteoarthritis

João Alves^{1,2}, Ana Santos¹, Patrícia Jorge¹, Catarina Lavrador², L. Miguel Carreira^{3,4,5}

- 1 Guarda Nacional Republicana, Lisbon, Portugal
- 2 Instituto de Ciências Agrárias e Ambientais Mediterrâneas – Universidade de Évora, Évora, Portugal
- 3 Faculty of Veterinary Medicine, University of Lisbon, Lisbon, Portugal
- 4 Interdisciplinary Centre for Research in Animal Health, Lisbon, Portugal
- 5 Anjos of Assis Veterinary Medicine, Barreiro, Portugal

OBJECTIVES

To describe the use and effectiveness of autologous platelet therapy in dogs with hip osteoarthritis (OA).

METHODS

In a prospective study, fifteen dogs with bilateral hip OA were treated with 3ml of platelet concentrate, prepared with the V-PET set, per hip joint. Response to treatment, measured by the Canine Brief Pain Inventory (CBPI, divided in pain interference score – PIS and Pain Severity Score – PSS), Liverpool Osteoarthritis in Dogs (LOAD), Canine Orthopedic Index (COI, divided in four dimensions: function, gait, stiffness and quality of life – QOL) and the Hudson Visual Analogue Scale (HVAS), was evaluated at T0 (before treatment), T1 (after 15 days), T2, T3, T4, T5, T6 and T7 (after 1, 2, 3, 4, 5 and 6 months respectively). Results were analyzed with a Paired Samples T-Test.

RESULTS

Significant differences were observed at T1 ($p < 0.01$ for HVAS, PSS, COI, Gait and QOL; $p = 0.01$ for PIS; $p = 0.02$ for Function; $p < 0.05$ for Stiffness), T2 ($p < 0.01$ for PSS, PIS and Gait; $p = 0.01$ for COI; $p = 0.02$ for HVAS, Function and QOL; $p = 0.04$ for Stiffness), T3 ($p < 0.01$ for HVAS, PSS, PIS, Function and Gait; $p = 0.01$ for COI; $p = 0.02$ for QOL), T4 ($p < 0.01$ for PSS; $p = 0.03$ for PIS and Gait), T5 ($p < 0.01$ for COI, Function and Gait; $p = 0.03$ for PSS, PIS and Stiffness), T6 ($p < 0.01$ for PSS, Function and Gait; $p = 0.04$ for PIS; $p < 0.05$ for COI) and T7 ($p < 0.01$ for PSS, Function and Gait; $p = 0.01$ for COI; $p < 0.05$ for PIS).

STATEMENT (CONCLUSIONS)

A single administration of autologous platelet therapy produced significant improvements for several months.

Radiographic measurement of mechanical tibial joint angles in Dachshunds: what is normal?

Charlotte Louise Banks¹, Richard Meeson¹, Elvin Kulendra², Darren Carwardine³, Ben Mielke¹, Matthew Pead¹, Andrew Phillips¹

- 1 Royal Veterinary College, London, United Kingdom
- 2 North Downs Specialist Referrals, Surrey, United Kingdom
- 3 University of Bristol, Bristol, United Kingdom

OBJECTIVES

To establish mean mechanical tibial joint angles in normal Dachshunds. To facilitate surgical planning when managing angular limb deformities in a breed predisposed to Pes Varus.

METHODS

Caudocranial and mediolateral radiographs of normal tibiae from dachshunds were retrospectively evaluated. The mechanical medial proximal (mMPTA), mechanical medial distal (mMDTA), mechanical caudal proximal (mCaPTA) and mechanical cranial distal (mCrDTA) tibial angles were measured on three occasions, by two separate observers using previously established methodology. Data were analysed to assess normality with Shapiro-Wilk test, reliability via Interclass correlation coefficient (ICC) and the mean and standard deviation were calculated.

RESULTS

Thirty-three craniocaudal and thirty mediolateral radiographs met the inclusion criterion. Data were normally distributed, intra-observer and inter-observer reliability was good (>0.8) for all measures. The mean and standard deviation for mMPTA, mMDTA, mCaPTA and mCrDTA were $93.201^\circ \pm 4.287^\circ$, $97.63^\circ \pm 4.022^\circ$, $74.768^\circ \pm 3.866^\circ$, $85.183^\circ \pm 5.677^\circ$ respectively.

STATEMENT (CONCLUSIONS)

Previous studies have established normal tibia joint reference angles (JRAs) in small, medium and large breeds.

Delivered by BSAVA to:

Guest (guest)

IP: 3.93.64.190

On: Wed, 26 Apr 2023 15:09:35

However, this is the first to ascertain normal JRAs for Dachshunds, a small and chondrodystrophic breed, which interestingly are comparable to other larger, non-chondrodystrophic breeds. Angular limb deformities are challenging cases to manage, an established reference

range can help optimise surgical outcome, particularly when the contralateral limb is abnormal. To the authors knowledge, the reliability of this method to establish tibia JRAs has not been previously determined. The good ICC supports this method of calculating tibial JRAs.

Comparison of accuracy of free-hand, fluoroscopically guided, and aiming device assisted drilling

Ian Faux, Jon Hall, Dylan Clements, John Ryan

Hospital for Small Animals, University of Edinburgh, Edinburgh, United Kingdom

OBJECTIVES

- To evaluate the accuracy of drilling using augmented drilling methods (fluoroscopy, aiming device) compared to free-hand drilling
- To evaluate the accuracy of drilling when performed by surgeons of different experience levels and when drilling is performed at an angle

- To assess the impact which drilling method and surgeon experience has on the duration of the drilling procedure.

METHODS

Three ECVS diplomates and three qualified veterinary surgeons without primary orthopaedic experience drilled into synthetic bone using three different methods (free-hand, fluoroscopy, aiming device) at three different angles (0°, 10° and 20°) aiming for a target (Point C). The distance between the drill exit hole and Point C and the duration of drilling was recorded.

RESULTS

The two augmented methods were more accurate than free-hand drilling, with the aiming device being the most accurate. Increased angulation of drilling decreased the drilling accuracy. Surgeon experience did not impact on drilling accuracy, but it enabled faster completion of the drilling procedure.

STATEMENT (CONCLUSIONS)

The use of augmented drilling methods improved the accuracy of drilling and surgeons should consider their use when drilling anatomical regions where the margin of error is small.

Medial epicondylar fissure fracture as a complication during stabilisation of humeral intracondylar fissures

Georgia Jenkins, Andy Moores

Anderson Moores Veterinary Specialists, Winchester, United Kingdom

OBJECTIVES

To report the incidence of medial epicondylar fissure fracture occurring during transcondylar screw placement for stabilisation of humeral intracondylar fissure, and to determine if this increased the risk of subsequent complications.

METHODS

Case records were searched to identify dogs that had undergone surgery for humeral intracondylar fissure. Cases were included if both pre- and post-operative imaging were available, and if re-examination was performed a minimum of six weeks post-operatively. Post-operative imaging was evaluated for presence of medial epicondylar fissure fractures, information from case records and radiographs were used to identify post-operative complications. Statistical analysis was performed using Fisher's test, and Odds Ratio.

RESULTS

Eighty-four elbows underwent transcondylar screw placement; medial epicondylar fissure fracture occurred in nine elbows at the time of surgery (10.7%). The most common transcondylar screw type was a 4.5mm shaft screw (71/84, 84.5%). All cases which developed medial epicondylar fissure fracture did so after placement of a 4.5mm shaft screw; this was not a significant association (Fisher's test ($p = 0.3425$)). Of the 77 dogs which returned for re-examination, eight had had medial epicondylar fissure fracture. Complications were identified in 16 cases;