**Evaluation of chronic pain in dogs following surgical stabilisation of humeral condylar fracture or fissure: 105 cases**

Meakin LB1, Lane TS1, Burns A1, Burton NJ1, Langley-Hobbs SJ1, Parsons KJ1

1 Langford Veterinary Services, University of Bristol, Langford House, Langford, Bristol, UK.

**Objective:** To evaluate the long-term outcome of dogs following surgical stabilisation of a humeral condylar fractures or fissures using an owner questionnaire.

**Study design:** Retrospective case series

**Methods:** Case records were searched to identify dogs which had surgical stabilisation of a humeral condylar fracture or fissure. Data obtained included age, breed, fracture/fissure configuration, stabilisation method and post-operative complications. Owners were contacted a minimum of 1 year after surgery to determine whether dogs required analgesia, exercise tolerance and overall quality of life assessment using the validated Helsinki Chronic Pain Index (HCPI) to evaluate the presence of chronic pain.

**Results:** 165 dogs were identified and owners were contactable for 106 dogs (64%). 32 elbows had humeral intracondylar fissures, 67 had fractures of the lateral or medial aspect of the condyle and 29 had fractures of both aspects (Y/T-fracture). Complications occurred in 50 dogs including swelling (13 elbows), pain (26 elbows), implant failure (13 elbows) and infection (10 elbows). 13 dogs required revision surgery, all for implant failure. Mean follow-up time was 3.8 ± 0.2 years. Chronic pain was identified using the HCPI in 20% of cases. The mean age of the dogs at the time of fracture (p=0.006) and at the time of questioning (p<0.001) was higher in dogs with chronic pain. Exercise tolerance was reduced (p=0.048), lameness observed more frequently (p=0.001) and owner perceived quality of life poorer (p<0.001) in dogs with chronic pain.

**Conclusions:** Chronic pain was identified in 20% of dogs following fracture/fissure of the humeral condyle.