Oral presentations

Revision strategies for persistent stifle lameness after tibial tuberosity advancement using the modified Maquet procedure (MMP)

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OBJECTIVES

To report the surgical management of patients with persistent lameness following tibial tuberosity advancement, using the modified Maquet procedure (MMP), for the management of cranial cruciate ligament rupture in dogs.

METHODS

Retrospective study of clinical records. Data collected included signalment, primary surgical technique, perceived cause of persistent lameness, revision surgical

technique, preoperative and postoperative radiographic findings, complications, owner assessment and veterinary assessment.

RESULTS

7 dogs, 8 stifles were included, with body weight ranging 8.7–65kg. All cases were initially operated elsewhere by MMP utilising a titanium foam wedge to achieve tibial tuberosity advancement and subsequently referred for assessment of persistent significant lameness. All stifles were considered clinically unstable, including on tibial compression test. Perceived cause of instability was under-advancement of the tibial tuberosity in 6/8 stifles and fracture of the tibial tuberosity in 2/8 stifles. 5/8 stifles underwent crescentic tibial plateau levelling osteotomy (TPLO) and 2/8 stifles underwent a cranial closing wedge osteotomy TPLO to achieve dynamic stifle stability. 1 stifle underwent arthrodesis as a salvage procedure. Complications included delayed osteotomy healing in 1/5 crescentic TPLO cases. 6/7 dogs returned to acceptable function. One dog that underwent arthrodesis and contralateral TPLO was euthanized due to poor function.

IMPACT/CLINICAL SIGNIFICANCE

Persistent instability is a putative cause of persistent lameness following MMP tibial tuberosity advancement. Surgical revision by TPLO, while technically challenging in this scenario, may be a potential revision strategy to improve limb function in this circumstance.

STATEMENT

No funding or declarations of interest to declare.

Elbow joint disease in dogs attending primary-care practices in the UK

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OBJECTIVES

This study aimed to supplement the limited evidence-base for elbow joint disease (EJD) in dogs. Reported pain and restricted freedom to exercise give EJD substantial welfare importance.

METHODS

This retrospective cohort study used the VetCompass database of primary-care veterinary clinical data.

Candidate cases of EJD diagnosis during 2013 were identified using free-text searches of electronic patient records followed by manual verification of a random subset. Demographic and management data were extracted on confirmed cases.

RESULTS

- The study population was 455,557 dogs. Of 12,334 candidate cases, 2,888 were manually examined to confirm 628 cases. The overall EJD prevalence was 0.59% (95% CI: 0.57–0.61%)
- The most commonly affected breed was Labrador Retriever (31.4%). The most commonly affected Kennel Club breed group was Gundog (42.2%) and the least was Hound (2.2%)
- 64% of EJD was bilateral
- The most commonly reported clinical sign was lameness (58%)
- Distribution of ages at first diagnosis was bi-modal, with peaks at 1 year and 8 years. Of the 12.1% of cases diagnosed <1 year old, 56% were recorded with elbow dysplasia. Of the 28.7% of diagnoses in dogs >8 years, 80% had osteoarthritis
- Radiography assisted diagnosis in 53.2% cases. Diagnosis of 46.1% used clinical examination alone

- The most common treatment employed was NSAIDs (87.8%)
- The records of none of the EJD cases indicated submission to BVA/KC Scheme elbow scoring

STATEMENT

The study highlights Labrador Retrievers as commonly affected. EJD was also found to predominantly be a bilateral disease. The high usage of analgesics re-affirms the welfare implications.

Old tricks, new dogs and cats: use of intramedullary pins and cerclage wires in 87 comminuted fractures in a first-opinion charity hospital

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OBJECTIVES

To describe the frequency of return to pain-free limb function and complication rate in canine and feline comminuted humeral, femoral and tibial fractures internally fixated with an IM pin and cerclage wires at a large first-opinion charity hospital.

METHODS

Retrospective analysis of clinical and radiographic histories of 23 dogs and 64 cats that had comminuted fractures repaired with an IM pin and cerclage wire(s) in the last two years.

RESULTS

In dogs, there were 10 femoral, 6 humeral and 7 tibial fractures, with most (>90%) being moderately or severely comminuted and occurring in ages <4 years. In cats, there were 28 femoral, 24 humeral and 15 tibial fractures, with most (>80%) being moderately or severely comminuted and occurring in ages <2 years. All animals apart from one cat (98%) returned to pain-free limb function within 20 weeks, with most (92%) achieving it by 14 weeks. Four dogs (17%) and six cats (9%) had mild complications of pin migration and two cats (3%) had post-operative infections. No complications led to fracture repair failure following suitable remedial action of pin trimming, removal, or antibiotics.

STATEMENT

Use of IM pins and cerclage wires in internal fixation of comminuted long-bone fractures in dogs and cats is a straightforward, inexpensive and widely adaptable technique which in this first-opinion patient study showed a high degree of successful pain-free limb functional outcome. Complications were relatively common but easily rectified; IM pins and cerclage wires should continue to assume an important position in the orthopaedic surgeon's armoury.

Exposure to osteoarthritic Synovial Fluid does not impact the viability of cultured adipose-derived Mesenchymal Stem Cells in dogs

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OBJECTIVES

Cultured adipose derived Mesenchymal Stem Cells (adMSCs) are administered to osteoarthritic dogs via intra-articular injections, thereby introducing the cells to a potentially toxic environment. This study investigates the effects of Osteoarthritic Synovial Fluid (OA-SF) on the viability of adMSCs *in vitro*.

METHODS

OA-SF (10 dogs) was filtered to remove cells/debris, then stored at -20°C. Canine adMSCs were plated onto 6-well plates in culture medium for 24 hours before the medium was changed to OA-SF, canine serum OR fresh culture medium. Total number and viability of cells from each of the three media were calculated following a further 24-hour incubation.

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