Oral presentations

CT images were manipulated to obtain 3D representations of the affected limb, so that virtual osteotomies could be performed and corrected to align the antebrachium and arthrodise the carpus. From these CAD templates, osteotomy and reduction guides and a single dorsally applied custom, hybrid (1.5/2.0mm) titanium plate were printed (Vet3D). Under general anaesthesia, via a cranio-medial approach combined correction and stabilization of the antebrachial osteotomy and pancarpal arthrodesis was performed using the guides, custom plate and an additional medially applied 1.5mm locking plate. Analgesia was provided with NSAIDs and opiates.

RESULTS

After 6 weeks, the patient improved, lameness due to osteoarthritis in the elbow was present. Radiographs

showed stable implants and healing of the arthrodesis and osteotomy. Unfortunately, 10 weeks after surgery acute luxation of the right carpus occurred and the patient was euthanized.

STATEMENT (CONCLUSIONS)

The use of CAD and patient specific, customized osteotomy and reduction guides as well as the creation of a patient specific customized plate allowed for the accurate correction and rigid stabilisation of an antebrachial deformity with combined pancarpal arthrodesis in a very small patient, whose antebrachium measured 5cm and pes measured 6cm.

Rotation of the proximal bone fragment during tibial plateau levelling osteotomy to control severe haemorrhage from the cranial tibial artery: cadaveric experimental study

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OBJECTIVES

To demonstrate that rotation of the proximal bone fragment following osteotomy controls haemorrhage from

the cranial tibial artery (CTA) during tibial plateau levelling osteotomy (TPLO).

METHODS

A TPLO was performed on 8 pelvic limbs from 4 cadavers. In each case, the CTA was transected. This was confirmed using angiography. The proximal bone fragment was rotated, fixed in place, (as it would be routinely performed during a TPLO procedure) and the angiogram repeated. The study was repeated with dye added to the contrast solution followed by surgical dissection and direct observation of the CTA.

RESULTS

After the proximal bone fragment was rotated and fixed in position, leakage of contrast from the CTA was absent on angiography. Direct visualization confirmed compression of the CTA against the musculature preventing leakage of the coloured dye solution.

STATEMENT (CONCLUSIONS)

Haemorrhage from the CTA during TPLO may be controlled following rotation and fixation of the proximal bone fragment without the need for direct visualisation or ligation of the vessel.

The use of transarticular external skeletal fixation to protect the primary repair of a patellar fracture in five dogs

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OBJECTIVES

To report short-term outcome and complications of transarticular external fixation (tESF) used as augmentation of internal fixation for patellar fractures in dogs.

METHODS

A retrospective case series, evaluating clinical records of five dogs presenting to a single referral hospital with

acute traumatic patellar fractures. Fracture configuration included apical or basilar ($n = 3$), transverse ($n = 1$) and comminuted fracture ($n = 1$). All dogs were treated with tESF (type II modified) to augment internal fixation of patellar fractures for six weeks. Primary patellar apposition and stabilization was achieved with absorbable suture (locking loop and/or circumpatellar), orthopaedic wire (circumpatellar and/or figure-of-eight with or without Kirshner wire) and/or nylon leader line (circumpatellar and/or patello-tibial). All cases were rechecked clinically and radiographically at six weeks and three at twelve weeks. Long-term follow-up was available through telephonic LOAD-questionnaire >2years post-operatively for 4/5 dogs.

Comparison of effectiveness of intramuscular amoxicillin, intravenous co-amoxiclav and intravenous cefuroxime for antibacterial prophylaxis in clean orthopaedic procedures

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OBJECTIVES

To document the effectiveness of preoperative intramuscular amoxicillin in the prevention of surgical site infections, when compared to intravenous co-amoxiclav and cefuroxime, in clean orthopaedic procedures where an implant was inserted.

RESULTS

Two dogs showed radiographic signs of progression of osseous union at the twelve weeks recheck. Three of five dogs had minor complications related to tESF and two dogs had a small avulsion of the distal pole of the patella. None of the dogs had major complications. All dogs available for long-term telephonic LOAD questionnaire (4/5) were reported as free of lameness.

STATEMENT (CONCLUSIONS)

Based on our results, tESF to augment internal fixation for patellar fracture in dogs is a feasible method with acceptable morbidity and good to excellent clinical outcome.

METHODS

Retrospective analysis of cases at a group of three first-opinion hospitals over 24 months. Data were collected on procedure, antibiotic used, dosage and incidence of surgical site infections (SSI) for the intramuscular amoxicillin (AM), intravenous co-amoxiclav (AC) and intravenous cefuroxime (CE) groups. SSIs were defined as superficial incisional (SISSI) or deep incisional (DISSI). Difference in SSI incidence between the three groups were analysed via one-way ANOVA.

RESULTS

Overall SSI incidence was 2.7%. The AM group ($n = 110$) showed an SSI incidence of 1.8% (SISSI 2/110, DISSI 0/110), AC group ($n = 92$) was 2.9% (SISSI 3/92, DISSI 0/92) and CE group ($n = 89$) was 3.4% (SISSI 2/89, DISSI 1/89). There was no statistical significance in overall SSI incidence between groups ($p = 0.75$).

The most common procedure was placement of a lateral fabellar suture (126/291, 43%) followed by a bone plate (73/291, 25%). Median dose in the AM group was 11mg/kg (range 7–16mg/kg), in the AC group 10mg/kg (9–15mg/kg), and the CE group 32mg/kg (29–50mg/kg).

STATEMENT (CONCLUSIONS)

In this group of patients, those receiving intramuscular amoxicillin showed the lowest incidence of SSIs, and although this was not statistically significant, it was non-inferior to the more commonly used intravenous preparations of co-amoxiclav and cefuroxime. Use of prophylactic intramuscular amoxicillin in these and similar procedures is recommended, given legal, safety, and antibiotic stewardship concerns surrounding the widespread use of unlicensed, broad-spectrum intravenous antibiotic preparations.