

16.1±4.6 mmHg, respectively. IOP was increased significantly in maximal dorsoventral extension of the eyelids (P=0.00), lateral eyelid extension (P=0.00) compare to the baseline. Surprisingly IOP was decreased significantly in compression of the left jugular vein (P=0.03) but this decrease was not clinically significant. In ventrodorsal body position IOP was increased but it was not significant.

STATEMENT

Results of this study maybe beneficial for clinicians and veterinary surgeons to be aware of the effects of body position, traction and compression of eyelids and neck on IOP during ophthalmic examination and surgery in cats.

Repair of Y-T humeral condyle fractures in the dog with locking compression plate (LCP) fixation

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OBJECTIVES

To evaluate canine Y-T humeral condyle fractures stabilised with a transcondylar screw and DePuy-Synthes locking compression plate (LCP) fixation.

METHODS

A retrospective review of clinical records and radiographs of dogs with Y-T humeral fractures, where stabilisation included LCP fixation. The implants placed, time to radiographic union, complications encountered,

post-operative lameness and range of motion were recorded.

RESULTS

Eighteen fractures met the inclusion criteria, with a follow up time ranging from 1.5 weeks to 7 months. The age of the dogs ranged from 6 months to 8 years, and body-weight ranged from 8.5kg to 35kg. Incomplete Ossification of the Humeral Condyle (IOHC) was identified in 15/18 patients. All fractures had an open combined medial and lateral approach to the humeral condyle, and had a single transcondylar screw placed, with the supracondylar region stabilised with bilateral LCPs in 16/18, LCP with veterinary cuttable plate (VCP) in 1 and a single LCP in 1. Additional supracondylar fixation implants were used in 9/18. Minor complications were reported in 1/18 and no patients required revision surgery. Limb function at follow-up 6–8 weeks was graded as excellent in 5, good in 4, fair in 3 and poor in 1 fracture. Range of elbow flexion was considered normal in 3, mildly reduced in 8, moderately reduced in 1 and markedly reduced in 1. All fractures with sufficient follow up achieved radiographic union.

STATEMENT

Canine Y-T humeral fractures stabilised with medial or medial and lateral LCP plates resulted in no major complications, reliable healing, and good limb function in 12/13 patients.

Stem cell yields are less than 10% from canine stromal vascular fraction and further reduced after cryopreservation

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OBJECTIVES

Mesenchymal stem cells (MSCs) can be isolated from adipose tissue by enzyme extraction using collagenase. The resultant cell mixture is called the stromal vascular fraction (SVF) and is a heterogeneous mixture of cells and cellular debris. Various systems are available to produce SVF as a same-day 'stem cell therapy' from adipose tissue. This study estimated the MSC yields from fresh SVF and investigated the effects of cryopreservation of the SVF on MSC numbers.

METHODS

Adipose samples were processed to form SVF using a standard protocol using collagenase. The resultant SVF was split into two equal portions. One was placed directly into culture and the second was cryo-frozen and then thawed and cultured. Cultures were

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photographed on day 2 and adherent cell numbers estimates.

Statistics were estimated by comparison of means using a two tailed T-test.

RESULTS

Fresh SVF comprised >50% dead cells of miscellaneous mixed cell type, collagen and capillary fragments. Of the living cells, even after 2 days in culture <10% were MSCs.

The mean number of MSCs per gram of adipose tissue was 51,872 (+/-23,648) cells per gram.

Cryo-freezing of SVF further reduced the number of viable stem cells down to <2% of the total cells.

STATEMENT

The low % of MSC yield, low viability and wide variation in MSC yield from SVF makes it impossible for veterinary practitioners to treat osteoarthritis in dogs with a standardised number of MSCs when using a same day SVF therapy. Culture expanded MSCs allow for a standardized, quality controlled, viability tested cell product.

Evaluation of functional neurorehabilitation effect: dog thoracolumbar intervertebral disc disease study

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OBJECTIVES

This study is regarding the functional neurorehabilitation role in the thoracolumbar intervertebral disc disease, a common disease causing neurologic dysfunction in dogs. Functional neurorehabilitation bases on spinal cord properties like neuroplasticity, neuromodulation and memorization. We aimed to know functional neurorehabilitation role on recovery of ambulatory and

functional capacity in dogs with the mentioned disease regardless the applied management, conservative or chirurgic, and what was the expected recovery time.

METHODS

The study included 98 dogs, 52 males and 46 females, with ages between 2 and 16 years, average weight of 14 kg, several breeds, grade 0 to 3, according to Frankel's Modified Scale. 58 type I Hansen hernia and 40 type II Hansen hernia, located between 9th thoracic and 4th lumbar vertebra, previously diagnosed, within the period of one year. Management was conservative or chirurgic and all were referred to functional neurorehabilitation in the same rehabilitation center. Protocol included electromyostimulation techniques, terrestrial, aquatic locomotor training and complementary modalities.

RESULTS

Functional locomotion was achieved in 80.7%. Although the presence of deep pain perception, in 75.5% cases, had a main role in the success, it was not limiting since 4.0% achieve fictitious functional locomotion. It was also proved that it's necessary in average 2 months to achieve a functional ambulatory state independently of the type of hernia and or applied treatment.

STATEMENT

We concluded that clinical success is a multifactorial conjugation of factors. However, functional neurorehabilitation proved its important and integrative role on recovery of these patients with an average of 2 months to achieve it.

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