Poster presentations

to polygonal and occasionally spindle cells surrounding frequent blood vessels.

On immunohistochemistry, more than 95% of the cells were positive for vimentin, muscle actin, smooth muscle actin, neuron-specific enolase and negative for cytokeratin, S100, desmin and Von Willebrand factor.

These results are strongly suggestive of a glomus cell tumour. No recurrence was reported during a three years follow-up period.

STATEMENT (CONCLUSIONS)

To the best of our knowledge, this is the first reported case of a glomus cell tumour on the head of a cat and only the second case reported in this species.

Specific immunohistochemistry appears to be of fundamental importance in the diagnosis of this neoplasia, as cytopathology and histopathology are usually uncertain.

Palliative neck radiation in dogs with chemoresistant high grade lymphoma

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OBJECTIVES

To report the clinical benefit of palliative neck radiation (RT) in dogs with chemoresistant high-grade lymphoma.

METHODS

The clinical records of four dogs with high grade B-cell multicentric lymphoma that received palliative neck radiation as part of their treatment were reviewed.

RESULTS

Dogs received 1600–2700 Gy in 2–3 fractions administered once weekly. Two dogs received adjunctive radiation to the neck due to progressive disease after standard of care and rescue chemotherapy and two dogs received radiation concurrently with standard of care chemotherapy due to a poor response to the induction protocol.

Two dogs that received radiation after multiple chemotherapy protocols had a complete response to RT and improved quality of life. The dogs maintained a complete response in the treated lymph nodes for >57 and 65 days after RT, and survived for 94 and 79 days after RT respectively.

Two dogs that failed to achieve remission with chemotherapy had stable disease following radiation treatment. The dogs maintained stable disease in the treated lymph nodes for 3 and 42 days after RT, and survived for 3 and 42 days after RT respectively.

All four dogs were euthanised due to progressive disease distant to the neck. Progression was evident in peripheral lymph nodes (1 dog), intraabdominal lymph nodes (1 dog), intrathoracic lymph nodes (1 dog) and liver (1 dog).

STATEMENT (CONCLUSIONS)

Palliative neck radiation can provide clinical benefit and improved quality of life in some patients with chemoresistant lymphoma.

Investigation of the PD-1/PDL-1 pathway in histiocytic sarcoma of Flatcoated Retrievers

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OBJECTIVES

Canine histiocytic sarcoma is an aggressive tumour that originates from cells of the myeloid lineage.

Flatcoated Retrievers are predisposed to the development of this sarcoma. Previous studies documented high expression of FoxP3 in tumour-infiltrating lymphocytes, suggesting the presence of regulatory T cells. PD-L1 is involved in reducing apoptosis in regulatory T cells via the PD-1 pathway. The aim of this study was to evaluate the pathways involved in maintenance of regulatory T cells within the tumour microenvironment.

METHODS

A preliminary study was performed on five formalin fixed and paraffin-embedded histiocytic sarcoma samples. Tumours were all localized in soft tissue and belonged to the histopathological histiocytic subgroup. Immunohistochemistry was performed, with immunolabeling for CD3, MHC-II, E-cadherin, FoxP3, and PD-L1. A scoring system of 1 to 5 describes the percentage of positive cells in 10 fields at 40x magnification.

RESULTS

All five tumours examined were negative for E-cadherin. A mean score of 3 was assigned to MHC-II and a mean score of 1 to FoxP3. All but one tumour scored 1 for CD3, the exception scored 3. Positive staining for PD-L1 was detected in the cytoplasm and on membranes of neoplastic cells with a score of 5 in all tumours.

STATEMENT (CONCLUSIONS)

Regulatory T cells have the ability to down-regulate the immune system, reducing anti-tumour activity. The interest in the role of this cell population has been encouraged by the prospect of effective immunotherapy treatments targeting these cells and their regulation pathways.

Orthogonal plate repair of the canine tibia: 10 cases

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OBJECTIVES

To describe the indications and application of combined cranial and medial plate fixation of fractures of the canine tibia.

To describe early complications associated with this repair method.

To describe short and long-term outcomes of tibial orthogonal plating.

METHODS

A retrospective review of tibia fractures in client-owned dogs that were repaired using orthogonal plating.

RESULTS

All fractures went on to union. There were 4 major complications in 3 dogs [2 infection, one refracture

post explantation, one implant exposure]. Long-term follow-up by telephone communication with the owners indicated that all dogs regained full functional limb use.

STATEMENT (CONCLUSIONS)

Orthogonal plate repair of the tibia has, to date, not been described well in the veterinary literature. It confers some advantages over the plate-rod technique clinically, in that pin migration and potential damage to intra-articular structures of the stifle and the patella tendon can be largely avoided. Plate explantation, if required, may be technically easier than removing intramedullary devices. There is less requirement for postoperative aftercare with this technique than with external skeletal fixation. The technique allows the repair of fractures where juxta-articular bone stock is limited and hybrid or circular fixation is, on occasion, inapplicable. Precontouring of implants is advised to reduce surgical time and to reduce the potential for creating angular or rotational deformities, particularly when less invasive approaches are used. Plate explantation, if necessary, may be best done in a staged fashion. Sight hounds may be more prone to complications with this technique given their inherently thin skin and poor soft tissue implant coverage.