Management of canine chemotherapy-induced vomiting and inappetence

Introduction
Chemotherapy-induced vomiting and inappetence is a common side effect of chemotherapeutic treatment, typically affecting half of receiving patients, that can lower quality of life and functionality. While human oncology has well-established protocols for preventing these side effects, veterinary medicine does not. In fact, lymphoma accounts for 7–24% of all canine cancer diagnoses, but there is still no standardized protocol for testing and treatment. Even in human medicine, there is a general trend in under-treatment of patients receiving overly emetic chemotherapy and over-treatment of patients receiving low or minimally emetic chemotherapy.

Statement of Purpose: The objective of this research is to establish a baseline regarding current standard of care to determine how veterinary specialists are managing vomiting and inappetence in dogs receiving chemotherapy.

Methodology
- Conducted as an online survey sent via listserv to approximately 1800 veterinary specialists
- The survey inquires:
  - Whether or not the specialist accompanies the patient during the time periods.
  - To depict what types of antiemetic therapies are used in prophylactic or reactive treatment of vomiting.
  - To determine the common appetite stimulants they use in treating inappetence in canines receiving chemotherapy.

Results
- The survey was sent out April 2, 2016.
- The results are statistics only, no statistics performed.

Demographics:
- 145 responses (140 DVM, 5 Nurses)
- 98 (68%) boarded oncologists
- 98 (68%) with medical oncology
- 101 (70%) private practice; 43 (30%) academic

Vomiting (Prophylactic Treatment, Yes/No): Day 1 (>50%):
- Cisplatin, Streptozocin, Dacarbazine, Paclitaxel, Epirubicin, Doxorubicin

Vomiting (Likely to cause > Grade 2 adverse event): Day 1 (Most emetogenic, responses indicating >50% likelihood):
- Cisplatin, Streptozocin, Dacarbazine, Paclitaxel, Epirubicin, Doxorubicin

Inappetence (Likely to cause > Grade 2 adverse event): Day 1 (Most likely to cause inappetence, responses indicating >50% likelihood):
- Cisplatin, Streptozocin, Dacarbazine, Paclitaxel, Epirubicin, Doxorubicin

Discussion
- Chemotherapies likely to be most emetogenic clinically:
  - Cisplatin, Streptozocin, Dacarbazine, Paclitaxel, Epirubicin, Doxorubicin, Mechlorethamine
- Chemotherapies considered most likely to cause acute emesis (Day 1) and delayed emesis (Days 2-5) are very similar.
- Most common antiemetic therapy in both the acute (Day 1) and delayed (Days 2-5) setting AND preventative and reactive (after vomiting has occurred) setting:
  - Maropitant, Ondansetron, Metoclopamide
- Chemotherapies most likely to cause inappetence are the same as those most likely to cause emesis.
- Clinical studies have documented the percent of treated canines showing decreased appetite:
  - Carboplatin 25% (7/28) in cats and dogs
  - Vincristine 43% (25/57)
  - Cyclophosphamide 36% (15/42)
  - Toceranib Phosphate 39% (34/87)
  - Doxorubicin 33-53% (n=49)
- Maropitant, an antiemetic therapy, is the most commonly utilized therapy for appetite stimulation.

Conclusions/Future Directions
- Data obtained in this survey will help contribute to the development of antiemetic and inappetence prevention and treatment guidelines in dogs receiving chemotherapy.
- Future clinical trials will assess the management of vomiting and inappetence in dogs with lymphoma being treated with chemotherapy and compare oncologists’ perceptions with evaluations made by dog owners.

References
- Punt, Leslie Fox, DVM, MS, Diplomate ACVIM (SAIM, Oncology), Natalie Punt, DVM, Leslie Fox, DVM, MS, Diplomate ACVIM (SAIM, Oncology)
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