

Evidence-based Integrative Medicine in Clinical Veterinary Oncology



Donna M. Raditic, DVM, CVA*, Joseph W. Bartges, DVM, PhD

KEYWORDS

- Complementary and alternative medicine • Integrative medicine
- Veterinary oncology • Cancer • Neoplasia • Dietary supplements • Herbs
- Nutraceutical

KEY POINTS

- There is a growing demand for use of integrative medicine in veterinary clinical oncology.
- Evidence-based research on using integrative medicine in veterinary clinical oncology is scarce.
- Translational research with animal models of human cancers is an opportunity to expand the knowledge of the etiopathogenesis of neoplasia and identify treatments.
- Metabolomics research may provide the evidence-based research needed to accelerate the use of complementary and alternative medicine in both human and veterinary oncology.

Integrative medicine (IM) is the use of complementary and alternative medicine (CAM) with conventional Western medicine systems. CAM therapies include herbs, supplements, acupuncture, massage, and others that are rational and supported by evidence to alleviate physical and emotional symptoms, improve quality of life (QOL), and possibly improve adherence to oncology treatment regimens. Demand for IM is growing, and veterinarians are being challenged to know more about these therapies.^{1,2}

Herbs and dietary supplements (HDS) are the most accessible form of CAM. Reportedly, more than half of the human population used HDS between 2003 and 2006. In 2010, US herbal supplement sales exceeded \$5.2 billion.³ Between 20% and 55% of human patients with cancer use HDS. Specifically, 67% to 87% of women with breast cancer and those 9 years after diagnosis use supplements. One study reported that 67% of clients gave their pets with cancer HDS, indicating commonplace use.⁴

The authors have no financial disclosures to acknowledge.

Department of Small Animal Clinical Sciences, College of Veterinary Medicine, University of Tennessee, 2407 River Drive, Knoxville, TN 37996, USA

* Corresponding author.

E-mail address: draditic@utk.edu

Vet Clin Small Anim 44 (2014) 831–853

<http://dx.doi.org/10.1016/j.cvsm.2014.06.002>

vetsmall.theclinics.com

0195-5616/14/\$ – see front matter Published by Elsevier Inc.

In treating a patient with cancer being given supplements, veterinarians face multiple questions and challenges, the most important being safety and efficacy. Veterinarians must rely on scientific evidence but cannot overlook the client's perspective. Reportedly, human oncology patients use natural products to empower themselves, attempt to take control of their health, and increase QOL.³ Considering the strength of the human-animal bond, logically pet owners would apply these same emotions.⁵ Owners use supplements, herbs, massage, and acupuncture in their own health care, so they expect veterinarians to have a basic understanding of CAM, especially with respect to cancer, chronic illnesses, and geriatrics.

Knowledgeable patients value physicians who embrace them as empowered participants in making their own health care decisions. The health care provider in this shifted perspective is an informed intermediary, an expert guide, and a consultant to the patient. The Society of Integrative Oncology in 2009 outlined guidelines for IM as part of cancer care. The Clinical Practice Committee outlined best recommendations for curcumin, glutamine, Vitamin D, maitake mushrooms, fish oils, green tea, milk thistle, Astragalus, melatonin, and probiotics.³

If a veterinarian is not responsive and knowledgeable about CAM, owners will likely seek advice from friends, nonprofessional literature, and the Internet, which provide ample but possibly incorrect information. In 2005, 60% of veterinarians reported that they needed skills or knowledge related to CAM on a weekly or monthly basis and 7% indicated situations arose daily. CAM is incorporated less into veterinary curricula than in medical schools.⁶

Evidence-based research on CAM in an IM plan in veterinary clinical oncology is scarce, which is expected because large-scale research funding is typically provided for projects with potential for profits, such as with new, patented drugs. Still, value exists in assessing current literature and exploring IM that either has potential or is already based on evidence for use in veterinary oncology with respect to growth of translational research and the "One Health" movement.

Animal models of human cancers are an opportunity to help both veterinary and human patients by expanding the knowledge of the pathogenesis of neoplasia and identifying specific treatments. Pets live in the same environments as humans and eat similar foods, thus are exposed to similar risk factors; therefore, the etiopathogenesis of canine and feline tumors is likely similar to that of human tumors. For example, breast cancer is the most common malignancy in women, and the mammary gland is a common site for tumor development in bitches.⁷

Veterinary pilot studies can justify investment of sizable resources required to complete larger trials, especially when positive results are documented in an animal model. In preclinical studies of cancer therapeutics, important information could be acquired for new and innovative therapies. Advantages are that dogs develop cancer about twice as frequently as humans, and the presentation, histology, and biology of many canine cancers closely parallel human cancers. In addition, body size of dogs simplifies biologic sampling, whereas shorter overall lifespan allows for spontaneous development and course of disease within a time frame reasonable for data collection.⁸

Cancer is an important disease in dogs and accounts for 27% of all deaths in purebred dogs in the United Kingdom. Without reliable historical tumor registries, it is difficult to know whether prevalence of cancer in dogs is increasing. However, animals are living longer as a result of improvements in health care, and cancer is generally a disease of older age.⁷ Also, advances in veterinary medicine, particularly diagnostics, and higher owner expectations are likely to result in increased diagnosis. Focus on QOL comes to the forefront of a veterinary treatment plan because the patient has a shorter lifespan than a human, and economics of treatment is different. With a

Download English Version:

<https://daneshyari.com/en/article/2460257>

Download Persian Version:

<https://daneshyari.com/article/2460257>

[Daneshyari.com](https://daneshyari.com)