



BCOA Health Committee Report

Starving the Cancer Patient

by Lou Avant, DVM

The BCOA Health Committee would like to thank all of you who helped by filling out our survey at the annual meeting in Atlanta this year. Your input concerning what problems you as owners and breeders feel most affect our breed have allowed us to determine certain areas in which to direct our efforts. The four major problems were heart problems, cancer, bloat, and thyroid dysfunctions.

The following is something that may be beneficial to those of you that have a dog with cancer. There are some very exciting things being discovered at Colorado State University by Greg Ogilvie. He is taking a lot of our theories about cancer nutrition and turning them inside out. Previously, it has always been believed that because most tumors have an accelerated growth rate that the energy requirements for our pets with cancer were higher than the average healthy pet. Not so, claims Dr. Ogilvie. He has shown that cancer actually shuts down the body, thus preventing it from utilizing food.

"According to Dr. Ogilvie, his studies have found that cancer alters the way the body uses nutrients. Even after cancer is in remission the body still uses nutrients abnormally. 'Cancer changes the body and the body doesn't recover from it even after the cancer is eliminated from the body,' he says."¹

At this time there is unfortunately no commercial diet being produced but Dr. Ogilvie has provided some nutritional guidelines that we can all use in a home or a clinic situation to provide out pets with the best possibility for survival from any type of devastating cancer. I must stress that this diet does not CURE cancer but used in conjunction with conventional treatments (i.e. surgery, chemotherapy, radiation, etc.) it definitely seems to prolong quality life. Following are a list of guidelines that can be used by both you and your veterinarian:

1. It is imperative that your pet eat an adequate amount of highly digestible nutrients in a form that the body can use ... it must TASTE good and be enjoyable to eat.

2. The diet should contain modest amounts of complex carbohydrates (starch, fiber, pasta, and cereal) and MINIMAL amounts of simple carbohydrates (sugars as in fruit and milk), high quality but small amounts of digestible proteins, and a modest amount of fat.

3. Animals should be fed orally whenever possible. Try anything you can think of to increase the palatability of the diet ... warming the food, stress free environment, lots of baby talk, etc.

4. Avoid diets with simple carbohydrates as the major calorie source. This type of diet tends to increase both lactate and insulin levels in the body and as a result will increase tumor growth and spread.

5. If fluid therapy IS required at your veterinarian's hospital, lactate- and glucose-containing fluids should be avoided if possible. A CLEAR EXCEPTION TO THIS IS IN SEPTIC SHOCK!! Your veterinarian is the best person to make this judgment.

6. Make sure you provide adequate calories. You can use the formula to assist in determining how many calories your particular dog requires daily:

$$2(30 \times \text{body weight (kg)}) = \text{kcal/day}$$

For you non-mathematician types: take your dog's weight in pounds and divide by 2.2. This will give you your dog's approximate weight in kilograms or kg. Then simply multiply by 60 and this will give you the approximate number of kcal that your dog needs each day.

As stated earlier, there is nothing commercially available at this time. I have, however, found a commercial diet which in my opinion is a close approximation of the diet being developed at CSU. Prescription Diet g/d (manufactured by Hill's Pet Products)

contains high quality protein but at a mildly restricted level. It also contains over twice the unsaturated fatty acids required by a "normal" dog. This particular diet contains increased amounts of all B-complex vitamins and vitamin E.²

"Because cancer competes with the host for specific amino acids, we recommend that highly biodegradable yet modest amounts of proteins be provided to the cancer patient. In addition, because there is some evidence that cancer cannot utilize fat, an energy substrate, this may be an important nutrient source to provide the host with adequate calories. More importantly, we have demonstrated that very specific types of amino acids, such as n-3 fatty acids, can be of value for the cancer patient. Through a number of studies in rodents and people, n-3 fatty acids have been shown to reduce lactate and insulin levels and have anti-cancer properties including the ability to reduce or eliminate metastatic disease."³

Because Derm Caps, a concentrated fatty acid dietary supplement manufactured by DVM Pharmaceuticals, Inc., does contain some of these fatty acids, I would recommend that this product be added to your diet as well. The Medical Oncology Research Staff at Colorado State University is currently interested in accepting certain cancer patients for this research project. The actual client cost is only around \$250 because the cost of the chemotherapy and/or radiation therapy, follow-up diagnostics, and food are covered by a grant. If you have any interest in this program, you may have your veterinarian contact anyone at 970-221-4535.

¹*Animal News*TM a publication of Morris Animal Foundation, Volume II, 1994.

²*Small Animal Clinical Nutrition* by Lon D. Lewis and Mark L. Morris, Jr.

³Personal communication with Gregory K. Ogilvie, DVM