16th Annual Symposium: Your Veterinarian and Your Dog
A Veterinarian's Observations on the Airline Transport of Dogs

Dr. Walter M. Woolf (V60), founder of Air Animal Inc., a pet travel agency in Tampa, FL, discussed the intricacies of transporting animals by air.

Since 1969, when Dr. Woolf first began to arrange air transportation for animals, he has reserved "seats" for species ranging from armadillos to worms. The largest number of travelers are family pets belonging to owners who are relocating. Woolf's agency sees to it that pets are safely housed once the family begins the move, that they are placed on the proper plane, and that they reach their destination in the shortest possible time.

Dr. Woolf discussed the different types of aircraft and pointed out where family pets are housed aboard the planes. He explained that animals travel in the bulk bin, a heated, air-conditioned and pressurized space. The animal crates are placed in such a manner that there is plenty of air circulating around them. They are held in place with sandbags and cargo nets.

Woolf had some tips for those planning to ship an animal. One should select the proper container. Today, USDA rules prescribe the proper size as well as the construction of animal crates. He did recommend that for international trips a crate one size larger than one used for domestic travel should be purchased as the animal will be in transit longer. He recommended that the animal be acclimated to the crate for a few days prior to the trip. He suggested that the dog or cat spend some time each day in the crate to become familiar with it. For bedding during the trip he recommended shredded paper. He felt that foam pillows are not suitable.

He also recommended that the animal receive neither food nor water for four to six hours prior to the trip. "It won't hurt the animal to travel with an empty stomach," he said. "And it will be more comfortable that way. When it reaches its destination it can eat again."

To travel by air, animals need health certificates and current vaccinations. As each state and country has different regulations, it is best to check about the requirements before taking the pet to the veterinarian for vaccinations and a health certificate. If the animal is to be shipped abroad, one should find out about the requirements from the airline or the consulate of the foreign country.

Dr. Woolf is opposed to tranquilizing cats or dogs prior to shipping. "A tranquilizer affects the respiration rate of the dog or cat and serious problems can arise," he said. "An aircraft is pressurized to about 8,000 feet, so what you are doing is taking a relaxed animal and putting it into relative oxygen insufficiency. If it starts to struggle and breathe hard, you will have a prob-

lem." He feels that many deaths of pets during air travel can be attributed to the use of tranquilizers.

He explained that airlines are very careful when handling animals and that they are treated as a priority shipment. "They are the last to board and the first to be unloaded."

He also suggested that when planning to ship a dog which requires a large crate, one should check with the airline whether such a crate can be loaded. "The dimension of cargo doors are different for each airline," he said. "You may be able to send your great Dane to California aboard a Delta 727, but you may not be able to return it aboard a TWA 727 because of the differing dimensions in the cargo doors.

According to Dr. Woolf, air travel for animals is safe and fast. "You can transport horses, cattle, chickens, tigers, dogs, cats, fish, or any other species," he said. "The airlines will accommodate these animals and get them to their destination quickly and safely."
Commonly Encountered Skin Problems in Dogs

Common skin problems were the topic of Dr. Robert Schwartzman. He prefaced the discussion by advising the audience that in many cases skin problems have a genetic basis. “Don’t breed those animals which have repeated episodes of skin trouble, you will just continue the problem.”

Hot spots (moist eczema) are common, particularly in longer coated breeds. “Usually the underlying cause is fleas or impacted anal glands,” he said. “The animal feels uncomfortable and begins to lick the affected area. This constant ‘worrying’ causes a lesion and in a very short time a weeping sore will develop.” Treatment involves clipping and cleaning the area, preventing the dog from licking it, and eliminating the underlying cause. In this area, hot spots appear to be seasonal, mostly in the spring and summer.

Sarcoptic mange (scabies) was the next disorder discussed. It is caused by a small mite which lives on the surface of the skin. Dogs with scabies are extremely uncomfortable and scratch continually, causing lesions. The disease has a very characteristic distribution pattern. Usually it begins around the ears and affects the neck, belly, and sometimes the legs. It is not a difficult disorder to cure, although diagnosis is sometimes difficult. Scabies is contagious to humans, and Dr. Schwartzman said in 30 percent of the cases the owner is also affected.

Cheyletiella is another mite which affects dogs. Animals with this large organism have a lot of flaking, scaly skin and appear to be covered with dandruff. This mite primarily affects young puppies and is contagious to other animals. If a dog has been diagnosed with Cheyletiella it is important to treat the environment to eliminate the mite, which can live in nature for quite a while, reinfesting the dog.

Another disease caused by mites, demodicetic mange, is quite serious. The mites causing this disease are present on the skin of dogs, cats, man, and other species and normally do not cause any trouble. However, in some dogs they suddenly begin to multiply, causing hair follicles to rupture and allowing bacteria to enter. This begins a cycle of skin infections. “There is a genetic predisposition and animals which have had demodicetic mange should never be bred.”

He said that the disease takes two forms, either benign, where small localized patches of hair loss occur which often disappear spontaneously, or as generalized disease. The latter is the more serious form as self-cure does not occur and secondary infection is common. Diagnosis is made by scraping and looking for the mite under the microscope. The disease affects mostly younger dogs. Treatment has improved over the last ten years though it still is lengthy. Dogs need baths to kill the mites and antibiotics to clear up infections. Dr. Schwartzman said that products now available are about 70 percent effective.

Seborrhea is another difficult disease to treat in dogs. “It is an internal disease,” he said.

National Brands, Generics, and Specialty Dog Foods

Today’s pet owner is confronted by a bewildering array of dog foods when shopping in the supermarket. Products range from canned “dinners” to dry or semi-moist foods for puppies, performance dogs and older dogs. Everything is attractively packaged and relentlessly advertised as “the best.” The price conscious shopper can forego fancy wrappings and buy store brands or generic dog food. Those who attend dog shows are further confused by an additional selection of special foods, ranging from growth diets to “natural” foods.

Which then is the food for one’s dog? “That depends,” said Dr. David S. Kronfeld during his discussion. “If Bowser spends his days on the couch, his requirements will be different from those of a dog which hunts, is being shown or which races.” He then explained that dog food manufacturers are governed by guidelines issued by the National Research Council. “NRC guidelines used to be the standards manufacturers had to adhere to,” he said. “Recently they were changed from “adequate” to minimum requirements of available nutrients on a caloric basis. The protein requirement, for example, dropped from 22 percent to 10 percent. Whether an animal will thrive on such a diet is another question.”

He explained that nutritional scientists and dog breeders look at dog food in different ways. “Scientists have been concerned with minimum nutritional requirements, while breeders want a diet that will enable a dog to reach its maximum potential as a specimen of the breed and as a performer.”

The cost of the food also plays a role. If money were no object, dogs could be fed organ and muscle meat as a protein source instead of the cereal based foods. “Economies dictated the use of grain in dog food,” he said. “Cereal proteins are inexpensive and the dog, while basically a flesh eater, has adapted more or less to a grain diet, provided it is carefully supplemented with high quality protein, fat, vitamins and minerals.”

Even so, the cereal ingredients are not without drawbacks. Some of the plant ingredients utilized in dog foods interfere with absorption of minerals. It is known, for example, that soy products contain goitrogen, which depress thyroid action; they also contain other substances which bind up calcium. To counteract this effect, manufacturers add abundant calcium, which may diminish absorption of copper and zinc or block iodine uptake in the thyroid gland. These interactions are involved in the “generic dog food disease.” It has been found that dogs fed generic foods exclusively can grow poorly, develop anemia or skin disease.

Cereal foods have to be cooked to make them digestible for the dog. This partially destroys nutrients. Also, preservatives added to dog food can influence health. Dr. Kronfeld pointed out that certain semi-moist foods contain high amounts of acids and that recently such acids have also been added to dry foods. Another substance, propylene glycol, also a preservative, can damage red blood cells.

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The picture is further complicated by the fact that the formula for dog foods changes, depending on the availability of the ingredients, in an effort to keep the cost low. "You may be buying the same brand, but the ingredients are different in each part of the country and the dog must adjust."

Discussing the minimum protein content of 10 percent established by the new NRC guidelines, Dr. Kronfeld pointed out that many studies have shown that dogs need 25 to 30 percent protein in their diet to grow properly. An even greater amount is required to cope with stress.

What can the consumer do to ensure that his dog eats the proper diet? According to Dr. Kronfeld, he first should look at the animal to ascertain whether it is in prime condition. Is the coat glossy and dense, is the animal active and alert? Is the wool dark and dense? Large amounts of stool, foamy, pale or in the color of the food, indicate poor digestion. The consumer should also look at the list of ingredients to find out the amount of protein. "When comparing foods and quantities, keep in mind that the expanded foods contain a large amount of air and are bulkier than kibbled foods." He also mentioned that breeds with a predisposition to bloat should not be fed expanded food dry, that it should be soaked to minimize the amount of air ingested.

The nutritional value of most expanded dog foods can be enhanced by the addition of meat or eggs and milk. "Eggs and milk provide the right amino acids to improve protein quality, as well as trace minerals and vitamins. If you want to add this, introduce it slowly to give the dog's system time to adjust."

Another alternative is to feed a fixed formula diet. These are more expensive but denser, and dogs generally eat less.

He was asked about vitamin supplementation and responded that the national brands of dog food contain adequate amounts, making supplementation superfluous. He warned against supplementation with minerals, especially calcium, explaining that this would do more harm than good.

In closing Dr. Kronfeld mentioned that the consumer dictates what is offered for sale by the feed companies. "A few years ago, a very high quality food based on our sled dog studies was test-marketed. It did not sell and was withdrawn. People perceive the current products as adequate."

Dr. David S. Kronfeld is Elizabeth and William Whitney Clark Professor of Nutrition at the School.

Update on Blood Diseases

Dr. W. Jean Dodds provided an update on blood diseases. She discussed three groups of disorders, acquired and inherited bleeding disorders, and immune-mediated blood diseases.

Two disease states that produce bleeding disorders in all mammals are poisoning by rodenticides and liver disease. Dr. Dodds explained that rodenticides currently are posing a new problem in veterinary medicine. "Rodents have evolved a genetic resistance to compounds. Now a new generation of more potent poisons is being marketed. It is not as common as Hemophilia A. Tests to identify carriers for both diseases are available free of charge from Dr. Dodd's laboratory." Hemophilia affects an animal in various ways. There can be intermittent bleeding into the joints, resulting in immobility, prolonged bleeding when teething, and the most dangerous of all, bleeding into the body cavities or the central nervous system. If one has a dog with hemophilia, he should never use it at stud as every daughter will be an obligator carrier.

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