LETTERS TO THE EDITOR

LETTRES À LA RÉDACTION

Mass importation of U.S. "puppy mill" puppies requires Canadian veterinary awareness and involvement

Dear Sir:

In August, 1991, I assisted the Ontario Society for the Prevention of Cruelty to Animals with the seizure of 22 sick puppies from a pet store. The puppies were in deplorable condition; most were coughing and suffering from ocular and nasal discharges. Some had bloody diarrhea. Many were thin and listless, and several were so filthy with excrement that it was difficult to distinguish their breeds.

There was a female German Shepherd approximately 5 months old that was recumbent in severe respiratory distress. It was emaciated and suffered from severe subcutaneous bullus emphysema extending from the lower mandible to the sternum. This dog had been admitted to Canada in a shipment with 27 other puppies from the state of Kansas. It was euthanized and submitted to a provincial laboratory for postmortem, when it was determined that the pathological changes seen in the animal were two to four weeks old. The dog had been in Canada for only three days, yet, just two days prior to its arrival into Canada, a veterinarian working for the state of Kansas had signed his name stating that he had inspected the dog and that it was free from physical abnormalities which would endanger it. How could an animal so blatantly ill pass such an inspection?

Documents photocopied at the time of the seizure aroused my curiosity which, with time and the discovery of additional atrocities, has become an obsession. Almost all pet stores in Canada that sell dogs purchase them from brokerage houses in the midwestern United States. Some of these brokers ship anywhere from 500 to 750 puppies a week to supply the North American pet store market. The seized documents revealed that many of those puppies sit in the brokerage houses for 6 to 10 weeks, and one can appreciate the stress and disease that must be endured by them while in such facilities.

The American Kennel Club (AKC) plays a major role in the marketability of these puppies. Eighty-five percent of the AKC's income comes from registration papers which, in 1990, was reported to be between 15 and 18 million dollars. The registration paper is the marketing tool used by the pet industry, because the consumer repeatedly relies on breed registration as an indicator of genetic soundness, health, and temperament. In August, 1991, Senator Rosenthal submitted to the Governor of California proposed legislation that stated "the low number of investigators to confirm breeding claims has led the representative of the largest registry to assert that 50% of the registrations may be fraudulent".

As veterinarians, we must educate the consumer on how to purchase a puppy. We must encourage the prospective buyer to seek out *reputable breeders*. They must see the breeding stock and assess the environment in which the puppy has been raised. We must make buyers more aware of breed related problems, and encourage them to question the breeder on precautions that he/she has taken to prevent the occurrence of genetic disorders.

As veterinarians, we must deliver a stronger voice to federal and provincial governing bodies in regard to animal welfare. Humane societies right across this country are overburdened with unwanted dogs, and in the provinces of Ontario and Quebec, they have become abattoirs. The Canadian Veterinary Medical Association recently made an agreement, in principle, to support, develop, and help enact legislation that is being developed by Agriculture Canada to deal with the mass importation of puppies bred in the USA. This is a giant step forward being taken by both parties which will need our overwhelming support.

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***Editor's Note:** For additional information on this subject, see last month's report on CVMA Council (Can Vet J 1992; 33: 302, 306) and the Agriculture Canada page in this issue. WCDH*

Freeze-thawing does not adversely effect immunoglobulin levels in colostrum

Dear Sir:

We previously reported the measured immunoglobulin levels in some commercially-available colostrum supplements for calves (1). For comparison, the immunoglobulin levels were also determined in a sample of fresh, first postpartum milking, colostrum and in a previously-frozen sample of colostrum purchased from a local dairy. The measured total immunoglobulin levels were approximately 100 g/L and 24 g/L in the fresh and thawed colostrum, respectively. This finding has led some readers to conclude that freezing has adverse effects upon the measured amounts of immunoglobulins in colostrum. We emphasize that we presented no evidence to suggest that freeze-thawing *per se* was implicated in the lower measured immunoglobulins in the frozen colostrum specimen.

It is probable that the frozen colostrum was not from the first milking after calving but from a later milking, and thus did not represent high quality colostrum.

To clarify this question, we recently tested the effects of repeated freeze-thawing on colostral immunoglobulin measurements. A single sample of fresh first postpartum milking colostrum was aliquoted into 20 mL quantities and frozen in a chest-type freezer at −20°C, then thawed by immersion in a 37°C waterbath for 30 minutes. Samples were subjected to 0, 1, 2, 4 or 8 cycles of freeze-thawing; then the IgG, IgM and IgA classes of immunoglobulins were measured by single radial immunodiffusion. The results showed no significant change in total measured immunoglobulins or in any of the immunoglobulin classes, even after 8 cycles of freezing and thawing.

In the previous study, when different, randomly-chosen, colostral samples were compared, the frozen specimen had immunoglobulin levels significantly lower than those of the fresh specimens. This demonstrates that when the producer obtains frozen dairy colostrum, the immunoglobulin levels are uncertain and may, in some instances, be below the levels required to supply the colostral immunoglobulin needs of the calf. While the total milk produced in the first 72 hours postpartum is considered by many dairy farmers to constitute colostrum, the concentration of immunoglobulins in colostrum declines rapidly with the cumulative volume of the colostrum produced, and only the first few liters will contain the maximal immunoglobulin levels. As a guideline, only first-milking colostrum should be considered a suitable replacer of colostral immunoglobulins for calves and it should only be collected only from multiparous cows, since heifers have significantly lower colostral immunoglobulin concentrations.

Also of importance is the fact that while we have measured total immunoglobulins in these specimens, we have not attempted to demonstrate the proportion of the immunoglobulins that are biologically active. Although immunoglobulin molecules are robust, it is possible that in some circumstances freezing and subsequent thawing may have adverse effects on the biological activity of immunoglobulin. This is particularly true if excessive heat has been applied during the thawing process. Since colostrum supplementation is often required quickly to supply the calf prior to closure of the gastrointestinal tract to immunoglobulin absorption, producers are tempted to thaw frozen colostrum as rapidly as possible. Loss of immunoglobulin biological activity through too rapid thawing is a concern and producers should ensure that colostrum is not subjected to high temperatures. The ideal practice is to freeze 1.0 L quantities of colostrum in plastic bags (10–15 cm^2) placed on flat trays. This will result in wafers of colostrum about 2.5 cm inch thick, which can be rapidly thawed in lukewarm water.

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Reference

1. Haines DM, Chelack BJ, Naylor JM. Immunoglobulin concentrations in commercially-available colostrum supplements for calves. Can Vet J 1990; 31: 36-37.

The practice of wild animal veterinary medicine

Dear Sir:

The Canadian Association of Zoo and Wildlife Veterinarians (CAZWV) is dedicated to improving the quality of care of wild animals and represents its membership on issues relevant to their professional interests. Representatives of the CAZWV, Health and Welfare Canada's Bureaus of Dangerous Drugs (BDD) and Veterinary Drugs (BVD), and the Canadian Veterinary Medical Association met in January to discuss concerns that narcotics and experimental drugs are being authorized for distribution to nonveterinarians for administration of free-ranging wild animals. Lack of control over the distribution and use of pharmaceuticals in wild animals represents a serious risk to the personnel involved, the general public, and the animal subjects.

The CAZWV proposed amendments to the guidelines used by the bureaus to authorize the distribution of pharmaceuticals to nonveterinarians for use in wild animals. The CAZWV recommended that a certification program that would provide evidence of proficiency in animal restraint and manipulation and in emergency first aid should be established to enable nonveterinary personnel with designated minimum academic prerequisites to administer pharmaceuticals to wild animals. The CAZWV offered to coordinate the development of a standardized, comprehensive, wild animal restraint course. It was further suggested that the administration of specific drugs, such as unlicensed and highly toxic agents, should be limited to veterinarians and, possibly, to highly trained nonveterinary personnel for use in emergency situations; these situations would be outlined in protocols developed with a consulting veterinarian.

The bureaus' response to CAZWV concerns and recommendations was cautious. They suggested that they had little discretionary power to make demands of applicants for drug releases; they recommended that CAZWV address the authorities within the various regions regarding the legality of the use of pharmaceuticals by nonveterinarians. Subsequent to our meeting, the BVD has indicated that upon review of its regulations, it is clear that it can only authorize the distribution of investigational drugs to licensed practitioners.