

I recently attended the American Association of Bovine Practitioners meeting in Vancouver, Canada. Some interesting presentations and conversations with other veterinarians made me think about some trends in our profession but also some personal observations of my own. If you are concerned that this means that there will be nothing of scientific merit in this newsletter, please do not be alarmed. Later in this letter I will include some information on Chronic Wasting Disease, about which there is current interest in whether it may affect livestock, so please look for that below.

The AABP Meeting and Some Trends in Large Animal Practice

AABP Membership and Attendance

At the banquet on the final day of the AABP meeting it was unofficially announced that the meeting attendance was over 1,900 people. It was also mentioned that AABP membership has grown slightly in recent years, even though bovine practitioner numbers certainly appear to be falling, at least in terms of full-time practitioners. This growth in members is certainly an encouraging trend.

I think that in part this is because veterinarians from many other countries attend, and there are concurrent sessions with the American Association of Small Ruminant Practitioners, sessions on dairy labor training, and also sessions for Veterinary Technicians. The entire AABP as well as the meeting itself is very inclusive and encouraging for students. There are several sessions where students present information from research or cases of their own, and a session focusing on career choices for newly graduated veterinarians or those in "transition to a career in food supply veterinary medicine". I cannot recall hearing of any veterinarians actually leaving a non-food animal career to move into a food animal career, but I have known of many recent graduates who have moved from mixed practice, even if they primarily did small animal work, into food or food and fiber animal practice exclusively. It would be interesting in a few years to survey and find out if recent graduates or those changing to food animal careers found these sessions useful; I give those who organized it credit for trying. It seems to me that it is a good idea to continue to reach out to students, allied practitioners, and anyone considering food animal careers.

Gender Changes in Veterinary Medicine

Of course almost anyone in society familiar with veterinary medicine notices a gender change in the members of our profession. During the past year, veterinary medicine in this country became 50% male and 50% female across our entire population of veterinarians in the U.S. Many attendees of AABP commented on a part of the session, "Food Supply Veterinary Medicine – Present and Future", a talk by Brian Sorge called, "Don't Send the Girl! Bridging the Gender Gap". At one point the veterinarians were asked to stand up if they graduated before a certain year, and then after; I do not recall the exact time. However, as one might expect the older veterinarians included a decided majority of males, and the younger group of veterinarians was predominantly female. However, several people commented that also it was a little longer and slower process for those who had graduated longer ago to stand up, while the more recent graduates sprang up more rapidly. That reminded me of how many large animal veterinarians I have known over the years who have had problems with shoulders, knees, hips or other musculoskeletal problems necessitating surgery. At this meeting I saw several people who had recently had or were contemplating hip replacement, knee replacement, or shoulder surgery. Many of these folks are in their 40's, or no older than in their 50's. The heroic people who perform large animal work over decades do not have a physically easy life in some ways.

I graduated 25 years ago from Ohio State and my class was 35% female, which was considered to be a high proportion of ladies in the class from not too many years before. Many of my female classmates were older students, who had a lot of other experiences before gaining acceptance to vet school; I suppose that not too many years later more of them would have been accepted into vet school earlier in life. Over the 17 years that I taught classes in two veterinary colleges, it seems to me that older experienced students in general have decreased some as a percentage of the classes. Of course I realize that may be partly because the students overall seem younger, as for some reason my idea of chronologically “old” keeps going up, and college students look somewhat younger. I have read that most of us even if subconsciously think of the age of our parents as “old” as we go through life. However, I am pretty sure that it is also true that veterinary classes have fewer older students today, at least the classes I have been familiar with. Older students can bring valuable perspective to some of the challenges and frustrations of veterinary school, and help less experienced students like I was have more insight into life with family, children and the working world. On the other hand, some of our older students introduced new concepts to parties in vet school, especially some of the West Virginians and Kentuckians. Veterinary school humor, the way faculty were impersonated at Fun Night and the types of things classmates sometimes said to each other, especially in public settings, was a lot less politically correct in those days.

Retaining People in Food and Fiber Practice

There was also a lot of discussion in small groups about veterinary college education and keeping people in food animal practice. Many of us have become familiar with recent surveys that have suggested that if veterinarians stay in food animal practice for at least 5 years, they will quite often remain for decades. I ran into a couple of veterinarians who graduated from Ohio State close to the time I did. We observed that out of approximately two dozen food animal graduates in my class, and over 50 in our combined classes, there are a handful still doing dairy practice today. All the rest are in small animal work or no longer in private practice.

I suppose that if something were to change whereby a high percentage of veterinarians that start out working in large animal practice remained there, instead of what is widely regarded as a scarcity of food and fiber veterinarians today, we would eventually have an oversupply. That seems difficult to imagine now.

Many dairy veterinarians I have known for years were at the meeting. Most of them work at universities, with pharmaceutical companies, milking equipment companies, or with some form of state or federal government. Some who were private consultants for years are now working in one of the above capacities. When the reasons are discussed, it usually is some combination of the long work hours, after-hours work, and repetitive nature of some aspects of private practice together with something they like about what they do now. Usually there is something about the specialization and acquiring new knowledge or expertise in the new career, or sometimes it is travel all over the world and the U.S. Even though it can be a sore point or a stereotype, I think sometimes part of the reason for the career change is that the schedule and the physical work of private practice, including rectal palpation work can be very hard on the body, as mentioned above. Most do not cite income as a major reason for the change, which I think is common in working life; job or career satisfaction is not usually just about money.

Respect for Veterinarians Who Remain in Private Practice

It is not an exaggeration to say that I have tremendous respect and admiration for veterinarians who remain in large animal practice for many years. Especially those who practice in dairy or other food and fiber species safeguard our food supply and do invaluable work for livestock producers. Surveys continue to show that livestock producers value veterinarians for reproductive work, surgery, and that practicing veterinarians are by far the single most trusted source of information on herd health. The influence that veterinarians in allied jobs such as academia or industry have would be small indeed if practicing vets were not there to do so much work on farms.

Chronic Wasting Disease

Some Information about CWD from the AABP Meeting

One of the presentations at AABP was, “Update on Chronic Wasting Disease” by Dr. Terry Spraker from Colorado State University at the Diagnostic Laboratory. CWD is a transmissible spongiform encephalopathy known to infect mule deer, white-tailed deer, black-tailed deer, elk and moose. Oral infection with CWD following ingestion of prions has been

published many times as the route of infection, although most studies have actually fed brain homogenates. It was first reported 40 years ago and more definitively identified 30 years ago, out here in the West. However, the list of states with confirmed CWD is growing rapidly just within the last few years. Utah, South Dakota, Kansas, Nebraska, Colorado, Oklahoma, Minnesota, Wisconsin, Illinois, New York and West Virginia as well as Alberta and Saskatchewan have been found to have CWD in either farmed or wild animals, mostly since 2002 with several states being found positive only last year for the first time. The infected farmed herds have nearly all been depopulated. This may reflect spreading of CWD, increased testing for the disease, or some combination of both. In some states, the pattern of new cases suggests that it indeed may be spreading.

The clinical presentation of CWD is characterized by emaciation in the face of a good appetite, similar to Johnne's Disease in its classical clinical form in cattle. Primarily this prion disease spreads via nerves or lymph nodes, but Dr. Spraker thinks there may be a blood borne phase of CWD. There has been no evidence of infectivity to cattle, sheep, dogs or cats. It is often written that goats do not contract CWD either, but Dr. Spraker is not convinced that goats do not contract the disease, he said.

Testing for CWD and Risk of Transmission to Cattle or Humans

The most common diagnostic test for CWD is an ELISA on lymph nodes. The lymph nodes most commonly tested at the Utah Veterinary Diagnostic Laboratory are submandibular or retropharyngeal lymph nodes, but the testing may be done on any lymph nodes, or on tonsil tissue. Positive test results are confirmed using immunohistochemistry (IHC) on the same specimens, or IHC may be used as the only test performed on brainstem tissue.

With its status as an emerging disease, there has been considerable research recently on whether CWD could be transmissible to cattle, or to humans as a source of a TSE, such as Creutzfeldt-Jakob disease. A paper by Hamir et al. in *Veterinary Pathology*, July 2007 reports that if the agent of CWD is inoculated into the cerebrum of calves, nearly all will develop severe CWD clinical signs over time. These are distinct from the brain lesions of BSE; the calves do not develop spongiform encephalopathy but instead appear to actually contract CWD. However the authors also suggest that CWD is readily distinguishable from other TSEs precisely because it does not produce spongiform encephalopathy, and that it does not naturally infect cattle.

There is speculation in the literature that humans could contract a TSE from consumption of CWD-positive meat, but there is no direct evidence of infectivity. An interesting study by Mawhinney et al. in *Emerging Infectious Diseases*, October 2006 examined human death certificates in 7 Colorado counties. These counties have a high CWD prevalence among deer and elk, with 75% of hunting licenses issued locally. The authors speculate that the community includes a relatively high proportion of people who consume local deer or elk meat. Comparing to another population, probably the rest of Colorado, death certificates from 1979 to 2001 showed no increased risk of death being recorded from Creutzfeldt-Jakob disease in the counties with high CWD. Of course, death certificate data may not be entirely accurate in whether people died of Creutzfeldt-Jakob disease, and the authors did not directly compare deer or elk meat consumption. However, it is certainly valid to say that no evidence of association with high CWD in hunted elk or deer and CJD in people was found.

Back to Dr. Spraker's talk at AABP, he related an unusual story. He has found that if hunters are interested to have deer or elk tested for CWD, they usually wait to hear the results before eating the meat and dispose of it if positive. Nevertheless, he had an experience where CWD was diagnosed in a hunter-killed deer and the hunter's home was called and notified. Some time later the hunter called very concerned. He and his wife were going through a divorce, and she waited until her husband and several of his friends had a venison party to tell him that the meat had tested positive for CWD. As a result, a number of people could be followed over time to monitor whether they developed TSE signs after consumption of CWD-positive meat. So far, none have reported any clinical signs.

At present, CWD remains a disease known to infect deer, elk and moose, but not known to infect ruminant livestock or common pets such as dogs or cats. There is certainly evidence that the disease is present in areas not previously reported, including Utah. Research is ongoing to examine the possibility of spread to other species. Those who provide veterinary care to ruminant livestock will remain interested in whether new studies show a clearer picture of whether CWD may actually be spreading, and provide more definitive answers on whether it may affect livestock or humans. It is good news that there is no current reason for concern. I found some of this information from AABP to be of interest. Suggestions

from our readers regarding topics they would like to hear more about are welcome; I look forward to hearing from you as always.

David Wilson, DVM
Extension Veterinarian

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