2007 AKC/CHF National Parent Club Canine Health Conference

In the last issue of the Performer I included an article on canine cancer from the conference I attended in October. This issue will include summaries from two of the lectures also from this conference. Libbye Miller DVM from the Belgian Tervuren Club has once again allowed us to reprint her summaries.

The Canine Health Foundation has the entire conference schedule and many of the lecture notes along with cutting edge information on health research available online at HYPERLINK "http://www.akcchf.org/research/white_papers.cfm" www.akcchf.org/research/white_papers.cfm. Topics of interest include Genetics, Reproduction, Infectious Diseases, Nutrition, CHIC, stem cell therapy, and canine cancer.

2007 AKC Canine Health Foundation National Parent Club Conference

What Everyone Needs to Know about Canine Vaccines and Vaccination Programs

Ron Schultz PhD; University of Wisconsin-Madison School of Veterinary Medicine

Dr. Schultz is on the AAHA Canine Vaccine Task Force, which is responsible for the current "Guidelines for Canine Vaccines and Vaccination Procedures" last updated in February 2007.

"Be wise and immunize, but immunize wisely!"

What vaccines are needed for all puppies?
The core vaccines needed by all puppies in the US are Distemper, Parvo, Canine Adenovirus Type 2 (this is for Canine Hepatitis) and Rabies.

When should the core vaccines be given?
Ideally, puppies will be vaccinated starting at 6-9 weeks of age, then revaccinate at 9 to 12 weeks and 14 to 16 weeks. Dr. Schultz stressed that it is critical the last dose be given between 14 and 16 weeks. NEVER vaccinate a puppy less than four weeks of age.
After the puppy series is completed, revaccination is recommended at one year of age or one year after the puppy series was finished. Revaccination can then be every 3 years or more.
Rabies must be repeated at 1 year of age and then every 3 years unless legally required annually.

How can I know my puppy is protected?
If you want to be sure, Dr. Schultz recommends an antibody titer two or more weeks after the last vaccination. If antibodies are not present, revaccinate and test again in 2 weeks.

What about the "non-core" vaccines?
Leptospirosis-if you are in a high risk area for Lepto use the vaccine which contains 4 serovars starting no earlier than 12 weeks. Revaccinate in 2-4 weeks and every 6-9 months after that. Keep in mind that even with vaccination your dog could get Lepto if exposed to one of the serovars not contained in a vaccine.

Bordetella-the duration and efficacy of kennel cough vaccines is not well established. Dr. Schultz

prefers the use of the “in the nose” version if this vaccine is used.

Lyme Disease-Dr. Schultz suggests that vaccination would only be beneficial in certain regions of the US, so its use is only suggested in endemic areas.

Giardia and Corona vaccines are not generally recommended.

Should I vaccinate my pregnant dog?
No, vaccination during pregnancy should be avoided if at all possible.

Should I vaccinate weekly if my puppies are at high risk for disease?
No, vaccines should not be given more than every other week, even if different vaccines are given (for instance, don’t give distemper one week and parvo the next)

My dog had an allergic reaction to his shots, what should I do?
Dr. Schultz suggests checking titres instead. If Rabies is the problem, check with local authorities to determine whether an antibody titre is an acceptable alternative.

Can vaccines cause autoimmune disease?
“Vaccines themselves do not cause autoimmune disease, but in genetically predisposed animals they may trigger autoimmune responses followed by disease as can any other infection, drug, or a variety of other factors.”

Do puppies develop immunosuppression after their initial series of vaccinations?
Yes, if the vaccine contains either modified live distemper or adenovirus, immunosuppression begins about 3 days after vaccination and lasts about a week. This is why you don’t want to vaccinate at less than 2 week intervals.

Are there any new or mutant strains of Distemper or Parvo that current vaccines do not protect against?
No-all current Distemper and Parvo vaccines are protective again all known forms of Distemper and Parvo when tested experimentally and in the field.

How long after vaccination does it take for my dog to safely protected?
It depends on the animal, vaccine, and the disease but generally speaking, dogs that don’t have maternal antibodies still present, vaccinated with modified live Distemper vaccine, will be protected within the day. Modified live Parvo vaccine takes between 3-5 days. Killed Parvo vaccine takes 2-3 weeks or longer.

How effective are the core vaccines?
Dogs properly vaccinated with modified live Distemper, Parvo, and Adenovirus would have 98% or greater protection from disease.

Are serum antibody titers useful in determining vaccine immunity?
Yes, especially for distemper, parvo, adenovirus and rabies. Titers are of little use for other vaccines. Dr. Schultz said not to worry about the numbers, if they have any antibody showing up, they should be protected.

Canine Reproduction

Dr. Margaret V. Root-Kustritz DVM, PhD, DACT
University of Minnesota

Decisions about whether or not to spay or neuter dogs and what age to do so, should be based on breed, working purpose of the dog, and desires of the owner. There is no "one size fits all rule".

Neutering Males

Pros

- Decreased incidence of testicular tumors though the incidence is only 0.9% and it is easily diagnosed and treated
- Decreased incidence of benign prostatic hyperplasia which affects 75-80% of dogs older than six
- Positive correlation between castration and increased lifespan

Cons

- Increased incidence of obesity-controllable with proper diet
- Two to four times more likely to develop prostatic adenocarcinoma. Incidence is only .2-.6% and this cancer is not hormone dependant so there is no cause-and-effect relationship
- Castrated males are one to three times more likely to develop osteosarcoma (bone cancer). Large and giant breeds are most at risk and some breeds have a genetic predisposition.
- Hemangiosarcoma is twice as common in castrated dogs though overall incidence is only 0.2%.
- One study linked a higher risk of anterior cruciate rupture to sterilization

Spaying females

Pros

- Greatly decreased incidence of breast cancer, which occurs in 3.4% of females with 50% of cases being malignant. Greatest benefit is seen if the bitch is spayed before her first heat.
- Incidence of pyometra (uterine infection) is seen in 15.2% of bitches by age four and 23-24% of bitches by age ten. Surgery to treat pyometra has a mortality of up to 17%.

Cons

- Same problems with obesity and some types of tumors as males
- Higher risk for transitional cell cancer of the urinary tract though incidence is only 1.0%
- Urinary incontinence may occur in 5-20% of spayed females. Incidence is higher in certain breeds, bitches over 45 pounds and bitches spayed before 3 months of age

Dr. Root-Kustriz said she recommends spaying after 3 months of age to lessen the incidence of urinary incontinence but before the first heat to maximize protection from mammary cancer. For most dogs, this means sterilization at about six months old….the traditional age for spaying.