

AVIAN POLYOMA VIRUS

Avian polyomavirus is a virus that kills large numbers of young birds. It is probably the number one non-curable lethal disease that affects parrots. Unlike bacterial infections, which can be treated with antibiotics, there are no cures for viral infections. The only thing that can be done is supportive care of the bird in the hope that it will recover by itself. The best thing to do seems to be to vaccinate young birds. By vaccinating, the birds' own immune system produces antibodies to the specific virus. These antibodies will then be present in the bird, and if the bird is exposed to active virus, these antibodies will protect it.

Unfortunately there are approximately 18 known families of viruses that affect birds. Within each family, there are many different viruses. Also, within each virus, there can be many different strains. Different strains can have different symptoms, rates of progression, etc. In order to make a vaccine, virus must be grown in a laboratory. After being grown, the virus is killed (inactivated) and added to an adjuvant. While this is not a problem with polyomavirus, some types of viruses like PBFD have been impossible to kill (and remain a vaccine). This is why no vaccine is available for PBFD at this time. The adjuvant helps to cause a stronger immune response by getting the body to target the injection site. Unfortunately, viruses live within cells. This can make them very hard to produce in the laboratory. First the laboratory must grow the host cells and then it must grow the virus within the host cells. Certain viruses that live within certain host cells cannot be produced at this time. These viruses live within cells which cannot be cultured very well in the laboratory. When this is possible, more and more vaccines will likely be available. Because polyomavirus is such a commonly occurring virus, it is one of the first viruses that have been worked with in the laboratory. Within the last couple of years, the vaccine has become available. Because this is such a new vaccine, the effectiveness of it is not completely known. It appears to be 90 to 95% effective.

The polyomavirus affects mainly young birds with weak immune systems. There are some recorded cases of older birds dying from the disease, but these are fairly rare. Young birds that are exposed to the disease usually die before their immature immune systems can produce an antibody response. By giving the vaccine, the birds already

should have an adequate amount of antibodies in their blood to stop the disease if they are exposed later. It takes about three weeks after a vaccination for the bird to develop an immune response. The recommended treatment is to give an initial vaccination, a follow up booster shot two to three weeks later, and a yearly booster after that. This is done to make sure the birds' immune system continues to make antibodies to protect it. **I**t is also recommended to give Caiques and Eclectus Parrots 2 booster shots instead of just one, since they are a more susceptible species.

If the parrot(s) you own never come in contact with any other parrot(s), it is probably not necessary to continue the vaccination process. **I**f, however, you go on vacation and board your pet at a pet shop, I highly recommend that you continue with the yearly boosters. **I**f you ever have anyone in your house that has a bird it is also recommended. The polyomavirus can be carried on their clothes and in their hair. The vaccine is very expensive, but I think it is worth it. I have vaccinated all of my breeder birds and I am vaccinating most of my baby birds. The more people that do this, the fewer birds that will suffer. Unfortunately, most breeders of inexpensive birds such as budgies, cockatiels and lovebirds will not vaccinate their birds. The vaccine cost more than the birds do! These birds are the primary carriers of this and most other diseases, and I think they will continue to be in the future.

