

Internal Papillomatous Disease:

*Managing the Papilloma-Positive
Breeder Bird*

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Papillomas are lesions found anywhere in the gastrointestinal tract of birds, but are seen most commonly in the cloacal area. These lesions may be on a stalk or appear as flat, red, raised lesions on the mucous membranes. Lesions in the oropharynx (mouth region) may appear wart-like. In some species, papillomas can be found on the unfeathered skin areas, especially around the face and eyes. Internal papillomatous disease may be diagnosed by biopsy of suspicious tissue, but a presumptive diagnosis may be made by everting the cloacal mucosa and applying a solution of 5% acetic acid to the tissue. Papillomatous lesions turn white, but these are not the only lesions that will turn white upon application of acetic acid.

Most commonly, New World species of parrots are affected by papillomas. In my practice, Green-winged Macaws, Hawk-headed Parrots, mini-macaws, and Amazons are most commonly affected, however, Blue and Golds and Scarlets often are diagnosed with papillomas, as well. It has never been reported in the literature to occur in Hyacinths. Researchers have published that this disease only occurs in New World birds, however, several practitioners (myself included), have diagnosed internal papillomatous disease in African Grey Parrots.

Birds with papillomas are more likely to develop cancer of the bile duct or pancreas than the general population of parrots. It is suspected that this disease is caused by a herpes virus and, recently, researchers have noticed a correlation between these lesions and the herpes virus responsible for Pacheco's disease. A high percentage of birds with papillomas have a titer against the Pacheco's virus. Currently, the Texas A & M University is performing research in this area.

Although it has been thought in the past that papilloma-positive birds were poor breeders, by utilizing good management practices, it has been proven that these birds can successfully breed and produce healthy offspring.


Because birds with internal papillomatous disease are more likely to develop secondary bacterial infections of the G I tract, this is one time when it is usually necessary to periodically treat these birds with a good broad-spectrum antibiotic to increase the chance that eggs will not become infected with bacteria. If a pair predictably breeds and lays eggs at a certain time, it may be possible to treat the pair with antibiotics a few weeks before this occurs, which will increase the chance of successful breeding. If papillomas are large, surgery or cautery of the lesions prior to breeding may also be helpful. It should be noted that this disease is considered incurable, and even if lesions are removed or disappear on their own, the bird should still be considered to have the disease, and are potentially contagious to other birds.

Feeding papilloma-positive pairs of birds a diet high in hot peppers, or one active ingredient, capsaicin (also found in hot pepper sauce), seems to cause lesions to recede. Papillomas may come and go, and may not always be present at all times, and capsaicin appears to have a positive effect on causing lesions to disappear. This does not mean, however, that the disease is gone, but without active lesions, the birds will have fewer problems with secondary infections. Stress may cause the lesions to return. (Stress may be caused by breeding, malnutrition, intraspecies aggression, being moved

to a new location or environment, change in diet, or any of a number of reasons.)

Current thinking suggests that this disease is not transmitted through the egg. Therefore, if the eggs are pulled for artificial incubation, there should be no risk of the hatchlings acquiring the disease. If the eggs are hatched under papilloma-positive parents, and the hatchlings are pulled prior to the parents feeding them, they, too, should not develop papillomas. If the parent-birds feed the neonates, they may be at risk for developing the disease at some time in their lives. So, for birds destined for future breeders, it would be best to artificially incubate the eggs or remove the hatchlings immediately upon hatch to best protect them from exposure to the disease. Baby birds fed by papilloma-positive parent birds should be sold only into the pet trade. However, in my experience, only a small percentage of offspring will develop the disease at some time in their lives, based on the birds that I have personally tracked. It is not common in juveniles, but it may develop in exposed birds as they mature.

It is thought that the spread of this disease might be airborne, so housing positive birds in indoor facilities should be discouraged, because there is a chance that it can affect other breeders. However, in my experience, this disease will not spread when birds are housed outdoors, under normal conditions. Of course, using good husbandry techniques and practicing good hygiene will do much to prevent the spread of this disease.

Can an aviculturist successfully breed papilloma-positive birds? You bet. Some papilloma-positive breeders are excellent producers. Treating them with antibiotics prior to the breeding season will increase the chance of successful reproduction. It is essential that the owners of papilloma-positive breeder birds develop a good relationship with an avian veterinarian familiar with avicultural medicine and internal papillomatous disease. The avicultural vet will be able to provide appropriate diagnostics, medical, and surgical care for birds with this disease, ensuring optimal reproductive success. 

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