Candidiasis in Birds: Signs, Treatment, and Prevention of Yeast Infections in Birds

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Candidiasis is an infection with the yeast *Candida albicans*. This is a yeast that is normally present in low numbers in the digestive system of birds. If the numbers of the yeast increase or there is some damage to the digestive tract, *Candida* can cause problems in the digestive tract and other organs including the beak and respiratory system. *Candida* can also infect the skin, feathers, eyes, and reproductive tract, but this is more common in nonpsittacine birds (birds not in the parrot family).

Which birds are at risk for candidiasis?

Candidiasis is most common in young birds, especially cockatiels. It is also more common in birds with suppressed immune systems. Factors that may increase the risk of a bird having candidiasis include:

- Delayed crop emptying
- Prolonged antibiotic use
- Poor sanitation
- Vitamin A deficiency
- Malnutrition (seed only diets)
- Presence of other infections such as poxvirus or Trichomonas
- Presence of other health problems such as trauma or smoke inhalation
- Stress, brought on by the shipping process or by being moved

What are the signs of candidiasis?

The signs will vary depending upon the organs involved. There may be only one area involved such as the mouth, or the entire digestive tract or other organs can be affected at the same time.

Infections of the mouth and beak can cause bad breath, and white, raised areas (called plaques) with thick clear or white material in the mouth. Some suggest the inside of the mouth has the appearance of terry cloth. Infections of the beak often occur at the commissures (where the upper and lower beaks meet).

Infections of the crop may cause regurgitation, depression, loss of appetite, a thickening of the crop, delayed crop emptying, and possible crop impaction.

If the infection occurs lower in the digestive tract, there may be depression, loss of appetite, weight loss, vomiting, and diarrhea. Because the absorption of nutrients by the intestines is decreased, malnutrition can often result if the infection becomes chronic.

In the respiratory tract, *Candida* may cause nasal discharge, a change in the voice, difficulty breathing, rapid breathing, and inability to exercise.

How is candidiasis diagnosed?

Since *Candida* is normally present in the digestive tract, simply finding the yeast there does not make the diagnosis of candidiasis. Along with a culture of the affected area and the finding of a large number of the organisms, your veterinarian will also take into account the signs, results of a physical examination, history and husbandry of the bird, and presence of other diseases.

To obtain samples for culture and microscopic examination, the mouth or other accessible area may be swabbed, or, an endoscope may be used to obtain samples from further down in the digestive tract.

How is candidiasis treated?

Treatment will include the administration of antifungal medications as well as eliminating any risk factors, such as poor diet, poor sanitation, or the presence of other diseases. Antifungal medications commonly include nystatin, flucytosine, ketoconazole, fluconazole, and itraconazole. For treatment of oral or skin infections, ointment containing amphotericin B may be applied.

How is candidiasis prevented?

Candidiasis occurs when some other factor negatively influences the health of the bird. By providing a clean environment and proper nutrition, reducing or eliminating any causes of stress, and preventing contact with any potentially sick bird, the risk of candidiasis can be greatly decreased.

For birds on prolonged antibiotics, your veterinarian may advise an antifungal medication. If candidiasis occurs in a bird nursery, nystatin may be added to the hand-rearing formulas. Any nursery items should be cleaned and disinfected after use on each bird (do not use any utensil on two birds without disinfecting in-between). Any left-over formula that could have been contaminated with secretions from baby birds should be discarded.