Chlamydiosis

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Introduction:

Chlamydiosis (also known as parrot fever, chlamydophilosis, psittacosis or ornithosis) is a disease of birds that can also cause disease in humans (having zoonotic importance). There have been no cases where the parrot chlamydia organism has been transmitted directly between humans. Birds or people generally contract parrot chlamydia by inhaling particles of infected material shed by chlamydia infected birds.

Causal agent:

It is caused by *Chlamydia psittaci,* a germ that is a bit bigger than a virus and a bit smaller than most bacteria.

Susceptible species/Species range:

Parrot is mainly susceptible species.Duck, chicken, pigeon, turkey are affected frequently. It can affect the bird of any age.

Transmission:

Birds or people generally contract parrot chlamydia by inhaling particles of infected material shed by chlamydia infected birds. The parrot chlamydia may be excreted in droppings, discharge from the eyes or nostrils or exhaled air. To develop psittacosis infection a bird must initially be exposed to the chlamydia organism through contact with a chlamydia infected bird or its droppings or discharges. It is possible for the disease to be carried by birds in a dormant state and then be activated by some stressing factor such as moulting, extremes in weather conditions (e.g. a cold snap), transportation, changes in husbandry or concurrent illnesses. Some birds may carry the organism for years without showing any clinical signs.

- **Clinical signs**

Clinical signs of chlamydiosis are quite variable and can range from sudden death in apparently healthy birds, to simply showing a lack of energy. Often birds show signs of

- Nervous sign: trembling, imbalanced gait, siezures
- Respiratory sign: Swollen eyelids, nasal discharge, difficult breathing, psittacosis like conjunctivitis, sinusitis etc.
- Digestive sign: lethargy, depression, 'fluffed' feathers, depression, loss of appetite, weight loss, diarrhoea, biliverdinuria (green droppings due to bile pigments).

- **Lesions:**

Greenish yellow diarrhoea, ruffled feathers, psittacosis like conjunctivitis are the main lesions.

Fig: swollen of eyelids

Fig: Difficulty breathing

- **Differential Diagnosis:**

Chlamydiosis may be cnfused with Mycoplasma infection, fungal pneumonia, viral pneumonia, salmonella infection etc.

- **Diagnosis:**

- From owners we have to take the history of previous outbreak or hygienic measurement of farm.
- Presumptive diagnosis based on clinical signs (Greenish yellow diarrhoea, ruffled feathers, psittacosis like conjunctivitis)

- Confirmatory diagnosis based on laboratory test such as positive antigen tests (the PCR Avian Chlamydia tests) and positive antibody parrot Chlamydia tests.

Treatment:

There is no treatment currently available that will 100% guarantee the elimination of the psittacosis organism. The main difficulty is that the organism can go into a dormant phase against which antibiotics are ineffective.

- The most effective current treatment is a course of doxycyline given orally or by weekly injections for 42 days.
- Drinking water medication is less effective as birds may not drink the medicated water, but it may be the only practical means of treatment in an aviary outbreak.

Prevention and control:

Because even apparently healthy birds may shed the psittacosis organism, it is very difficult to completely eliminate the risk of psittacosis in humans . This risk of transmission to humans is obviously greater in a bird that has been diagnosed as having the disease. If you are considering treating a bird with psittacosis you should be aware of the possible human health risk .

Control measures that will reduce the risk of spreading psittacosis include the following:

- Have all birds tested for psittacosis by an avian veterinarian.
- Follow veterinary advice regarding isolation and treatment of individual sick birds.
- Do not introduce any new birds until treatment has been completed.
- Minimise stress and focus on good husbandry, good nutrition and regular cleaning.
- Bleach, F10 or quaternary ammonium compounds are effective disinfectant.
- Avoid creating dust or aerosols. Wearing a mask may reduce the risk of infection in humans.
- Treat every bird as a potential carrier. Only introduce new birds of known origin. Quarantine and treat new birds, as advised, for 4 weeks before introducing them to previously treated birds.