

# PSITTACOSIS

# REAL THREAT OR PAPER TIGER

Currently there is a resurgence of interest and even anxiety over an apparently real increase in the number of proven and suspect cases of psittacosis reported in both humans and birds. The report of the Infectious Disease Section of the State Department of Health confirms the diagnosis of at least 20 human cases during 1975, the largest number of cases in over a decade. Since the latter part of October, 1975, our laboratory has diagnosed 11 cases in birds and is studying several more. It has reached the point where at least two public health officials have suggested that we solve the problem by prohibiting the sale of all birds. This simplistic approach must be resisted and replaced by a more realistic solution devised by all concerned parties working together. In pursuit of such a solution, all recognized pet or exotic bird veterinarians were invited to meet for an evening discussion of psittacosis on February 24 at the San Gabriel Laboratory. Plans are currently underway to have a day long symposium on psittacosis in the second week of May. Recognized researchers, state and federal regulatory officials, quarantine station operators, wholesalers, representatives of the more prominent aviculture societies, etc. will all join for a thorough review of the current problem in all of its aspects and, hopefully, will propose answers for some of the more pressing problems. If answers are not to be had, hopefully, research will be initiated when the problem areas are more clearly defined. In addition, we are scheduled to address two bird clubs on the subject of psittacosis, in March. There is also an informative newsletter being circulated to many dealers, retailers and owners of cage and aviary birds by the Cooperative Extension of the University of California. You will be kept abreast of further developments in this effort and we solicit your comments, suggestions and questions at any time.

As a bird fancier, should you be concerned about psittacosis or is it just a paper tiger which deserves to be ignored? We are very concerned and I think you should be too but we'll give you some of the basic facts and let you make up your own mind.

#### INTRODUCTION

Psittacosis is one of the few hazardous bacterial diseases which can be spread from birds to man. Like so many other diseases, it exists in many different forms. which vary in their effects on birds and man from nearly inapparent all the way to lethal. All strains are most dangerous to the very young or very old birds or humans and especially when other diseases are present. At least 127 species of birds are known to be susceptible, although they differ widely in their degree of susceptibility. Each of the eleven specimens, which have come to us in recent months, had been killed by the disease, and at least two of the owners were sufficiently affected to require treatment by their physicians.

# DESCRIPTION OF THE DISEASE IN HUMANS

An acute, generalized infection, usually caught by the inhalation of dried droppings of infected birds, characterized by fever, headache, and early pneumonic involvement. Cough is initially absent or nonproductive, sputum mucopurulent, lack of appetite extreme, pulse usually slow in relation to temperature, common constipation, lethargy with occasional relapses. Human infections may be severe but are most often mild in character. Death is rare. Severe complications include central nervous system involvement, pericarditis, myocarditis and endocarditis (heart problems).

### DIAGNOSIS

Specific diagnosis may be made by isolating the agent under suitably safe laboratory conditions. Due to the hazard involved, only a few specially equipped laboratories are currently prepared to handle this task. It may also be confirmed by demonstrating a rise in antibody titers in blood samples, one taken at the beginning of the disease, and the second after recovery.

#### TREATMENT

A full course of tetracycline (1 gram per day for 21 days) should be given to prevent relapse.

(Much of the above was taken from official publications of the State Department of Health.)

# DESCRIPTION OF THE DISEASE IN BIRDS

The signs vary widely according to the species involved and the particular strain of bacteria involved. The first indication may be sudden death but more commonly the bird is seen to be depressed, dull, or weak. There may be a loss of appetite and consequently a loss of weight. There may be watery droppings early, constipation later, and then, if the bird survives for three weeks or more, diarrhea may reappear. There may be eye involvement or nasal exudate. It can be seen that these signs are not peculiar to psittacosis but are shared by many diseases. A differential diagnosis will require the services of your own veterinarian.

### DIAGNOSIS

Diagnosis of psittacosis in the living bird is a difficult task. A careful clinical examination, when considered in the light of the history of the problem, may enable your veterinarian to make a presumptive diagnosis. Based on his best professional judgment, he may then advise that you begin appropriate treatment prior to making a final positive diagnosis.

In the case of the bird which is killed by the disease, the diagnosis may be easier, based on gross lesions and the visualization of the organisms in specially prepared tissue specimens. However, a positive diagnosis may be impossible without recourse to isolation of the organism for various tissues, feces, or blood. This operation is not completely safe even in a specially equipped laboratory and it is rarely attempted in ordinary laboratories.

Our inability to respond to requests for laboratory confirmation of the status of a living bird is one of our most critical deficiencies. Technically, it is possible to blood test most (but not all) birds and determine whether or not they have been infected with psittacosis. Practically, the test requires two blood samples be drawn at an interval of at least two weeks and subjected to what is known as a complement fixation test. The test is difficult and expensive to perform at best. Public health laboratories are prepared to run it on human samples but are not prepared to accept samples from birds, unless there is involvement in a human infection.

In response to many requests, and with the cooperation of a laboratory in San Francisco, it is now possible to have C.F. tests for psittacosis run on blood taken from birds under suspicion. Arrangements for this test may be made by your veterinarian in cooperation with our laboratory. The ability of the laboratory to handle samples is severely limited, so only carefully selected flocks can be tested.

We have recently arranged to acquire the protocol and materials for performing a different type of blood test which may prove to be feasible. If it proves to perform as well as the preliminary reports suggest, we will have a very useful tool.

Technically, it is possible to isolate the organism from samples of the bird's droppings. If facilities were available to perform this technique, it would enable us to answer a lot of questions. Unfortunately, such facilities don't exist at the present time and we can't predict when or even if they will come into being.

## TREATMENT

Any veterinarian, physicial or laboratory who diagnoses psittacosis in a bird or a human is required by law to report the fact to the State Department of Public Health. Local officials are then required to quarantine the flock, initiate and supervise treatment, advise on the ultimate disinfection of the premises, and finally to release the flock from quarantine.

In the broadest outline, treatment will be accomplished according to the following general principles.

When a single bird is found to be infected with psittacosis, as many as 90% of the remaining birds in the flock may already be infected. Therefore, it is imperative to initiate treatment as early as possible and to follow an approved plan for medication. Unfortunately, it has been demonstrated time and again that water medication alone is undependable and that adequate treatment requires the feeding of a medicated feed for at least thirty days, 45 days in the case of certain large psittacines. For those birds who will eat millet, Keetlife is available from Hartz Mountain and offers an easy way to treat a flock properly. Larger psittacines may require the preparation of a cooked mixture of rice and chicken scratch to which Aureomycin has been added. In addition, special fomulations have been devised for nectar feeding birds and for pigeons.

# **PREVENTION AND CONTROL**

All of us who work in the local, state, and federal offices are anxious to help control the spread of psittacosis and to minimize its impact on the health of both humans and birds. We can only do this if we have the full cooperation of enough of the informed and responsible bird fanciers such as yourself. The following are some of the specific recommendations which we make to our own clients and friends.

1. If you have a flock free of the disease, take all necessary precautions to keep it clean.

2. Never add a new bird to your collection until it has been quarantined in isolation on your own premises for at least thirty days.

3. Buy only from reputable dealers. As you well know, there is an enormous traffic in smuggled birds. These birds are rarely treated to ensure freedom from disease and even if they appear healthy at the time of purchase, they may be carrying psittacosis or other diseases and will infect your other birds in short order. 4. If at all possible, try to ascertain the cause of any illness or death of birds in your flock.

5. If psittacosis should be diagnosed in your flock, follow closely and faithfully all of the instructions of the Public Health Officials. At the end of the treatment period, you may be reasonably certain that you have a flock free of the disease. As such, it is a very valuable resource to you and should be a cause for much reassurance to any potential purchasers of your stock.

6. Don't be embarrassed if psittacosis should be diagnosed in your flock. Be grateful that you have learned the cause of your problem and that you have had the opportunity to eradicate it. No thinking person will.criticize you for having the disease. They will all criticize you for ignoring or trying to hide it.

If we all work together, we can whip this problem. We hope you will choose to join with us in the fight  $\blacksquare$ 

