

Veterinary Laboratory Services

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## ERYTHROBLASTOSIS, AN EMERGING DISEASE

During the past year, I have diagnosed five cases of what is thought to be a rare type of blood tumor called erythroblastosis. This disease, or one similar to it has been known in chickens since 1907, but to my knowledge, has not been reported in our exotic species. It may well be that it appears to be rare only because relatively few avian pathologists are looking for it. Thus far, I have seen it in a hooded parakeet, a budgie, a lovebird, a red eared finch, and a Bourke parakeet. Quite likely, it will be found in many other species in the future as more people become aware of it.

Nothing appears in the available literature on this disease in exotic birds, so in order to understand it at all, we must make an unproved assumption that it is similar to the disease in chickens. It may be that in six months or six years the true nature of the disease will be revealed, but for now, we must make a lot of educated guesses.

The disease in chickens is caused by a number of different viruses which belong to the group known as lymphoid leukosis. Most chickens are carriers of the viruses although only a relatively few of them develop tumors and die. The disease is transmitted primarily through the egg to the chicks and the male has very little influence on its spread. It can be transmitted from bird to bird by contact, but the probability of this happening is very remote. To date, there is no effective vaccine available for chickens, and of course, none for our exotic species.

In chickens, two forms are recognized. One is characterized by the presence of a severe anemia, but the other shows no signs of anemia at all. This situation seems to apply to the few cases which I have seen among the exotic birds. The Bourke and the hooded parakeets were both severely anemic. Not all birds will die from the infection. At least one hooded parakeet has survived the disease and seems to be healthy. Of the five birds I have seen, all have been slightly to very thin. They may show no definitive signs which will help to differentiate this disease from many others. If a blood sample is taken by your veterinarian and a stained smear is prepared for microscopic examination, characteristic cells may be recognized in it and a diagnosis can be made. I suspect that supportive

treatment will be unavailing in most cases and that the bird will usually die. If a post-mortem examination is performed, several clues may be revealed. Invariably, the liver is moderately to enormously enlarged. It may be pale or dark red in color and the surface may present a mottled appearance. The spleen may be normal in size or greatly enlarged. Some birds will be very anemic with thin, watery blood and pale tissues including the bone marrow. In two of the five birds, other serious diseases were present at the same time, namely psittacosis and Pacheco's Parrot Disease. The definitive diagnosis may be made by doing a microscopic examination of the liver. The passageways in the liver will be found to be stuffed with an accumulation of characteristic cells which can be recognized as members of the erythrocytic or red blood cell series, hence the name, erythroblastosis.

If the disease should be diagnosed in your flock, what can you do? First of all, don't panic and start wringing necks. Quite likely, very many of our birds are silent carriers of the viruses and it is only the occasional bird which develops the disease and dies. At this time, it is not practical to identify which birds are carriers and which are not. There are several tests which are used for chickens, but they are complicated and expensive. Inasmuch as this disease is probably caused by a virus, there is no specific drug which could be expected to be effective against it. The usual supportive measures such as a warm cage, good food and water, vitamins, etc. would be appropriate.

Because the disease is primarily passed from mother to offspring, it may be possible to eliminate it from a breeder flock by giving close attention to isolation of the individuals and the keeping of good records. I would suggest that if you are interested in the possibility of eliminating it from your flock, you should develop a comprehensive program with the cooperation of your veterinarian.

In conclusion, here is yet another disease which is emerging from obscurity due to the cooperation between collectors and breeders of exotic birds and the veterinary profession. When it is better understood, it should be possible to minimize its impact on the health of our birds.

CANARY CULTURE contd from page 36 trays every day. In addition to nestling food, feed soaked seeds separately, also three times per day. Mix 65% canary seed, 30% rape, 5% niger. Soak seeds 24 hours, strain in fine strainer and wash under faucet, strain and store in glass jar in a cool place. Make enough to last you three days. We do not let the seeds sprout. In addition to the above, feed fresh greens twice daily (dandelion, lettuce, spinach, chickory). Keep mineral grit in the cage all the time.

After much experimenting with nesting material we adapted upholstery cotton batting. Upholstery cotton batting is easily obtained from upholstery shops. You must make sure it is pure cotton. It must not contain any synthetic fibers. Synthetic fibers will wrap around the birds legs and toes and cause damage to them.

The first nest is built by the bird itself. In most cases the nest is not very good, and I end up making one for them. I have several spare nests which I prepare by placing a large piece of upholstery cotton batting in the nest, then form it with a light bulb and then I place a lemon or orange in the nest and keep the orange there until the nest is needed. The weight and moisture from the orange will form a beautiful full nest. Normally I replace the nest after the 6th or 7th day, that is when I band the babies, or thereafter if the nest looks soiled. The breeding cages, as you can see in the accompanying pictures, are made of plywood. They are easily made if you follow the drawings supplied in this article. The fronts are removable for easy cleaning and repainting. The bottom drawers are made of sheet metal your local sheet metal shop can make them for you, or you can improvise. After the breeding season, remove the dividers and the breeding cages become flights. The accessories, which you can see in the pictures, including the fronts, are available from "Twyford Aviary Supply Co." The water drinker can be any suitable bottle with rubber stopper and glass spout. Be very careful with this type of a drinker, they are famous for stopping the dispensing of the water. You must shake the drinker to let the water out and let the air in, to equalize the air pressure. Once you get used to this type of drinker you will find it to be the best.

Selective breeding is lots of work. A well organized breeding room, with the proper equipment will alleviate some unnecessary work. If you have a method to raise canaries and it works, by all means keep it. If you do not have a method, try this one. I manage to raise many canaries every year.