

YOUNG BIRD DISEASE SYNDROME

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Since the early 90s we have been dealing with a disease syndrome we have, for want of a better description, called young bird disease

In these earlier days the young birds typically showed vomiting, food retention in the crop and green diarrhea as the most obvious symptoms.

In laboratory tests various viruses and bacteria were isolated. Adenovirus and E.coli were the main isolates. The syndrome at this stage developed the name of Adeno coli syndrome.

This disease appeared very suddenly with many lofts getting it at one time, sometimes all on the same day! It was not unusual for us to get many telephone calls from fanciers all on the same day all describing the same symptoms and, strangely enough on the same day as my own birds became ill!

With REST and treatment (to be discussed later) the youngsters recovered quickly and in the same year performed well. This is what happened in the earlier years of this syndrome but as the years have gone by the scenario appears to have changed.

Henk de Weerd of Holland described a different Adenovirus (TypeII) which affected the liver more than anything else and it was found in older birds and in birds that had young bird disease the previous year. It looked as though the bird's immunity broke down when they were subjected to the stress of their second year of racing. In SA we probably had a similar problem. Detailed research and tests were not done in SA with the result that notes could not be compared with Holland's test and research results

In October this year a group of veterinarians working in different bird and pigeon clinics in Germany released a scientific article on their findings on what they call young bird disease syndrome.

Forty five lofts with YB disease were tested. Their findings were as follows:-

CIRCO VIRUS was found in ALL 45 lofts.

HERPES VIRUS was found in 7 of the 45 lofts

NO Adenovirus was found in any of the 45 lofts

Other findings in these 45 lofts were an increased incidence of: -

1. E.coli
2. Other bacteria causing diarrhea and respiratory symptoms
3. Candida
4. Aspergillus
5. Trichomoniasis (Canker)
6. Hexamitiasis

The most severe symptoms were seen at 4 to 12 weeks. Main symptoms seen in this study were:-

Green to black diarrhea

vomiting

No appetite

Delayed crop emptying

Reluctance to fly

drinking a lot of water

Sneezing

As mentioned before the most severe symptoms were seen up to 12 weeks but older birds were affected. This article does not mention up to what age the birds were affected with the above symptoms.

Our experience in SA especially in 2005 was that we felt that even two year olds were being affected, not with severe symptoms as above but with more vague symptoms like poor and late returns. An interesting example of this is a 700km race we had this year with a velocity of 1300mpm. It took members of our club about 40 minutes to fill the 30 positions. In earlier years we would have filled all 30 positions in a couple of minutes (at 1300 velocity)

In Holland, Belgium and Germany veterinarians doing research on Circo virus tested strays brought in by members of the public. These were birds that had been lost in races. They appeared healthy but nearly all of them tested positive for Circo virus. This virus may be one of the factors responsible for unexplained losses during training and racing and for slower returns as discussed in the paragraph above.

In SA this year we appeared to have an increased incidence of mild Paramyxo late in the season. You get the impression that because of all these viruses especially Circo virus the birds are not developing an immunity that is sufficient to last them a full 12 months.

Over the last couple of years we have been having more and more of a problem with Canker. Is this as a result of the organism having developed a resistance to the medications used or is it as a result of the fact that birds harboring viral infections do not respond to treatment very well? Possibly a combination of the two?

Birds with Circo virus and to a lesser extent other viruses will be more susceptible to anything going on in the loft. The symptoms seen will often be as a result of the other secondary infections rather than the Circo virus itself e.g. respiratory symptoms. Pigeons with these viruses, when vaccinated, do not develop the same level of immunity as healthy birds. Circo virus behaves like AIDS in humans-the virus also makes humans more susceptible to many other infections. Humans become more susceptible to TB, Pneumonia, Hepatitis etc.

To summarize then, what we SEEM TO have over the years is a change from your typical Adeno virus with vomiting and diarrhea of SHORT DURATION IN YOUNG BIRDS ONLY to a disease with a more prolonged course and affecting older birds to a certain extent as well. The vomiting and diarrhea is seen more in the young birds and more vague milder symptoms are seen in the older birds. In earlier years we found more Adeno virus and in

later years more Circo and Herpes virus. Whether we must call all forms of the disease syndrome caused by the different viruses by the same name i.e. Young bird disease -we do not know!

Dr. Colin Walker from Australia is also of the opinion that the cause of the young bird disease syndrome appears to be Circo virus/Herpes virus type syndrome.

We therefore, in many different countries seem to have a disease syndrome where the symptoms have changed to a certain extent and the cause has varied from Adeno to Circo and Herpes virus. It is possible, though that the Adenovirus was identified first because it was easier to detect and it was only as a result of further searching that the Circo virus was found.

How do we treat these virus conditions?

The principles of treatment of your birds will be the same as the principles you use for yourself when you have Flu

If you visit a doctor when you have flu he will tell you to get into bed, (REST) give you vitamins and perhaps antibiotics

When treating our birds it is no different

.The basics of treatment are:-

1. REST. The longer you can afford to rest the birds the better. They will tell you when they are ready to be trained again by their behavior in the loft and by the way they circle the loft during exercise. As humans, if we continue playing sport while we have flu we will take a long time to get better. The same applies with the birds.

2. Isolation of the badly affected birds.

3. Disinfection of the loft, water and food hoppers. This does lessen exposure to the virus.

4. Immune stimulants (to boost immunity)

Adenosan

Medimmune

Gambammune

Livimmun

Viroban etc...

5. Probiotics. These replace the good bacteria that are lost during the vomiting and diarrhea phase and also those lost due to antibiotic treatment. They are also known to be able to boost immunity. Colin Walker of Australia is a great believer of using these products.

Enteroplus

Protexin

Liviferm etc.

If at any time during the year if you have no medication in the drinking water and you feel you MUST then you cannot go far wrong if you put probiotics in the water!

6. Treatment of the secondary infections.

a) Bacteria .As discussed above, an increased incidence of bacteria e.g. E.coli is found. in birds suffering from these viruses. Various antibiotics can be used eg.Baytril, .Amoxycillin preparations (Avimox, Longstim), Mediprim, Fosbac etc. Remember that these antibiotics do not kill the virus.

b) Trichomoniasis (Canker) is often found as a secondary complication. Treat with a medication that is given in tablet form so that antibiotics etc, can be given in the drinking water.Use Metronidazole preparations (Meditrich, Flagyl etc.) Ronsec and many others.

c) Many birds have secondary Candida which again worsens the symptoms of the primary virus. Use Medistatin on the food for 5-7 days.

d) Birds with these viruses will become more susceptible to Ornithosis and Mycoplasmas. These problems must be treated as the problems arise.

7.Other products used in the prevention and treatment of this condition are:-

Garlic

Grapefruit seed extract

Apple cider vinegar

Jik

Hydrogen peroxide

Vircon S

Tramisol

Propolis etc.

The effectiveness of some of them is debatable. The recommendation of some of them is similar to the recommendation of the SA minister of health advising us to eat beetroot as a cure for Aids! We must emphasize at this point that the response to treatment using natural or more conventional remedies depends on the virulence (strength, danger) of the virus. For example, in man it is easier to prevent or treat a common cold (with vitamin C, garlic etc) than it is to treat Aids or Rabies purely because the common cold is less virulent than Aids or Rabies. The same principle applies to pigeons. Most of the virus infections that pigeons suffer from are far more virulent than the common cold. In other words the above products would treat and prevent a common cold in humans better than it would treat Adeno, Herpes ,Circo,Pox or Paramyxo virus.(They are more virulent than the common cold)

At this stage mention must be made of the use of Jik,Virkon,Virukill etc. These products disinfect the water and prevent the spread of the virus in the drinking water. They do not cure the disease in the pigeon. If this were the case we would drink Jik to cure our colds and flu!

8. Vitamins and electrolytes can be used where considered necessary.

In human medicine many different products are used in the prevention and treatment of colds and flu. Everyone has their own ideas as regards the prevention and treatment. If a single product was 100% effective it would be the only one on the market and the only one used by EVERYBODY. This is not the case. The same applies with

the treatment of these virus conditions in pigeons. There is not a single remedy that is 100% effective. They all help the bird to recover as quickly as the underlying virus condition will allow.

Whether any of these products discussed above work or not depends also to a large extent on the inherent natural resistance that a particular pigeon has. Nothing will work for a pigeon that has a weak constitution. A bird that has a strong constitution will benefit from this aid but some birds would survive without any help which would be what would happen in nature (in the wild). We all know that some of us have a natural health and others are very sickly. Help from the immune boosters is more likely to help the naturally healthy people. For example a person that is naturally healthy that eats garlic may think it is the garlic that is keeping him healthy but it is probably more as a result of his natural health. Conversely a sickly person will think that garlic is useless because it does not help him...

There is no vaccine for these viruses. An Adenovirus vaccine used for poultry is used by some to protect pigeons against Adenovirus. As far as we know no SCIENTIFICALLY CONTROLLED trial has been done to prove whether this vaccine does protect pigeons against Adenovirus. It certainly would not provide any immunity against Herpes and Circo virus which are the main topics of discussion of this article.

While on the subject of vaccinations, pigeons with these viruses do not always develop a full immunity when vaccinated against Paramyxo for example. Due to this it is probably best to vaccinate birds against Paramyxo every 6 months and when babies are being vaccinated for the first time to vaccinate twice 4 weeks apart.

How do we live with these virus conditions in the future?

1. Some families of birds within your loft will appear to have more natural resistance than others. Use these birds more for breeding and racing, especially while these viruses are prevalent. Over the years you will develop a tougher type of bird???
2. Train your young birds on the road in the off season. With the stress of this training they may become ill. This would give them a chance to develop immunity in the off season. With any luck this immunity would protect them over the next racing season???
3. Build up a good strong team of old birds so that you become less reliant on the yearlings. Race the yearlings only when you have to. In this regard it would help if racing organizations limited the yearling races to the bare minimum so that fanciers would be able to rest the yearlings as much as possible. Young bird racing that some organizations have in January / February could also be discontinued if Young bird disease becomes a problem.

The future?

The birds that are becoming ill now will, if they race well be put to stock. These birds will HOPEFULLY pass on some immunity to their babies so that the disease will HOPEFULLY become less and less of a problem in future years.

The birds that were really very ill and had no inherent ability to overcome the infection have been lost. They will not be able to produce another generation of birds incapable of fighting off these viruses.