

ADENO (CIRCO) COLI INFECTIONS IN YOUNG PIGEONS

(YOUNG BIRD DISEASE)

The adenovirus infections are described for a number of bird species. The pathogenesis (the ability of an organism to cause disease) of the virus is most of the time low and often their precise role in the clinical picture is not clear. Most of the adeno viruses are considered to be complications caused by other causative agents.

However, one can see a few of the adenoviruses as 'exceptions' which are highly and primarily pathogenic (unhealthy) as there are for example EDS, a virus disease that is responsible for a reduced laying in chickens and the 'bronchitis virus' we can see in quails. The same we see with the H.E. and the adenoviruses in pigeons. These adenoviruses in pigeons are responsible for two different clinical syndromes which both can cause serious damage to a pigeon population.

A frequent problem with the disease was the adenovirus type 1. We know all about these problems for already over 25 years. Young birds ignore being called to the loft and start to vomit and become sick. They produce bright green watery stools and are losing, sometimes visibly, weight. From time to time the pigeon has trouble with digesting water and the crop stays full. They drink very little. The past showed a higher mortality rate than nowadays. The disease is spreading like wildfire (high rate of morbidity) and from my point of view of the adeno (circo)-coli syndrome is especially an E-coli problem. Of course, one can find during a detailed check-up also other pathogens but E-Coli is by far the most important agent and this one responds in general positively after treatment with antibiotics. The problem is most of the time, with the right remedy easily treated. The virus component (adeno type 1) in the past and the present circo virus (Dr J P Duchatel) are of minor importance in this specific case. One assumes that the circovirus can be an impediment for the infected pigeons to build-up a natural immunity.

For a long time the part of the virus has not been clear. Almost all young pigeons are a

carrier but this fact, fortunately, does not always lead to problems. Nowadays we see many problems with this adeno (circo)-coli syndrome all over the globe, but at the same time the disease has become in the last 5 years much less aggressive and much better to treat. One can do almost nothing to prevent. Most of the time the disease starts in Belgium, mostly in May, in The Netherlands in June and in Germany and the UK even later. This has to do with the preparations (training tosses) for the young bird racing season. Also in China and the USA we often see this problem. From the beginning it all started in Belgium.

The E-coli bacteria are generally speaking a part of the normal intestinal flora in humans, animals and also the pigeon. There are hundreds of strains of the E-coli bacteria. In fact it is common practice to prove the presence of coli bacteria in the stool of pigeons. Sometimes the coli bacteria becomes pathogenic and will cause problems which we have to treat. One did preventive vaccinations with the chicken adenovirus EDS. Following the manufacturer and the University of Gent the vaccine can't be used for pigeons because it has a different antigenic (protein) structure. One of the results of the scientific research by Dr Duchatel is that a possible vaccination with a circovirus vaccine (unfortunately not yet on the market) can bring the solution for this problem. We'll have to wait and see. The simple fact that a young pigeon can get Adeno (Circo) Coli three times in his first year, does not give me a lot of hope for the efficacy of a vaccine.

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