May 2nd 2006

Case of Human Conjuctivitis due to Low Pathogenicity H7N3 Avian Influenza in UK

Last week veterinary authorities in the UK reported that there had been some cases of A/H7 avian influenza (AI) in birds in a commercial chicken farm in Eastern England – see: http://www.defra.gov.uk/news/latest/2006/animal-0426.htm. Avian influenzas of the A/H7 type can be either highly pathogenic (Highly Pathogenic Avian Influenza – HPAIs) or of low pathogenicity for birds (so called LPAIs). Low pathogenicity viruses are less dangerous than HPAIs to birds and some birds infected with LPAIs do not even become ill. There is now a preliminary report from the European Union Veterinary Influenza Reference Laboratory that the virus in the chickens is of type A/H7N3, and that it is of low pathogenicity.

Both low pathogenicity and high pathogenicity H7N3 avian influenza viruses acquired from birds have occasionally infected humans in the past in Europe, and elsewhere in the world. This sometimes has resulted in mild illness (usually eye infections sometime with flu like symptoms) or simply asymptomatic infection in people handling infected birds.[1,2]

On Friday (April 28th) the UK authorities (the Health Protection Agency) reported that a man working with the chickens in the affected farm has developed conjunctivitis (an eye-infection), that this had been confirmed to be H7N3 and is being treated with anti-virals. The UK authorities also reported that they had intensive surveillance in place and were offering antivirals to all exposed persons.

Information on the incident is available at **http://www.hpa.org.uk/** specifically at http://www.hpa.org.uk/hpa/news/articles/press_releases/2006/060428_avian_flu_h7.htm

On Saturday April 29th the UK Veterinary authorities made public that that cases of A/H7N3 had also been found in chickens in another pair of farms in the

protection zone around the original farm.
http://www.defra.gov.uk/news/2006/060429a.htm

Consequently the public health authorities (the Health Protection Agency) have widened their surveillance activities to include those farms and other places the chickens will have gone (e.g. local slaughterhouses) as well as the many staff involved in the culling. A few suspect cases of conjunctivitis and other respiratory illnesses are coming through this system but to date all these have proved to be negative for A/H3N7. Some of the people with symptoms were put on oseltamivir as a precaution before the test result came through.

ECDC Commentary The human case came to light because, as a precaution, and in addition to the veterinary measures taken to stop further infection of birds, the UK public health authorities (led by the Health Protection Agency) also started monitoring the health of the people working on the farm where the outbreak occurred and engaged in the culling processes. They also made sure the workers and those engaged in culling were taking all the necessary precautions and they considered whether to start any on medication.

The UK authorities have pointed out that this is not the first case of conjunctivitis due to a low pathogencity avian influenza in the UK as in the 1990s another person caught conjunctivitis attributed to an LPAI (H7N7) from the waste products of domestic poultry when they were cleaning out a poultry shed.[3]

The reason for the UK authorities precautionary action at an early stage (when they only knew they were dealing with an A/H7 strain) was the experience with a different and highly pathogenic avian influenza virus, A/H7N7 that affected chickens in Netherlands, Belgium & a small part of Germany in 2003.[4-6] As well as killing many chickens that virus infected some people working with the chickens. Some of them even passed the infection onto their immediate close family though there was no further person to person spread. All these Dutch cases experienced only mild to moderate symptoms (conjuctivitis and influenza like illness) with one important exception. One infection in a previously healthy veterinarian had a fatal outcome.[6] However such severe illness has yet to reported with a low pathogenicity avian influenza virus or with A/H7N3 (HPAI or LPAI). Similarly person to person spread of LPAIs has never been reported.

LPAIs are quite common in poultry (chickens and ducks) and mostly are of interest to veterinarians to whom they are of concern because they sometimes change to become highly pathogenic viruses.

This case emphasises the importance of people taking basic hygienic precautions if they are in close contact with any poultry or poultry waste products (faeces). The precautions for avoiding low pathogencity infections are available

on the ECDC web site and are the same as for avoiding HPAIs http://www.ecdc.eu.int/avian_influenza/Health_Advice.php

Finally, it must be emphasized that the virus involved here is a low pathogenicity virus and not the highly pathogenic avian influenza A/H5N1 often referred to as 'bird flu'.

Comments on this posting should be sent to influenza@ecdc.eu.int

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