

Experience with Avian Influenza (Bird Flu)

KUŞ GRİBİ

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Avian influenza is an infection caused by bird influenza viruses which occur among birds. The virus is carried by wild birds and spread to chickens, ducks and turkeys. Wild birds carry the virus in their gastrointestinal system without getting sick, however, domestic birds are prone to get sick even to death.¹

Influenza viruses, with new antigenic variants, continue to spread with yearly epidemics, which most humans infected due to lack of immunity. Influenza viruses undergo continuous genetic variation as drift and shift based on surface antigens.² Replication of H5N1 virus in humans requires an adapted landbased poultry virus.

There are many forms of avian flu producing mild symptoms, however, bird flu produce a highly contagious disease with severe symptoms and findings as cough, fever, muscleaches, sorethroat, dyspnea, anemia, pneumonia and death. Avian flu caused by H5N1 virus which caused severe lethal disease in humans in Asian Countries (Vietnam, Thailand). There have been a number of small outbreaks of bird flu since 1997. The virus has killed 6 people in Hong Kong in 1997 and 1 in 2003, 36 people in Vietnam, 12 in Thailand and 4 in Cambodia.^{3,4}

Turkey's experience is summerized as follows:⁵

Four children were lost since December 27th, 2005, when Turkish Agriculture & Rural Affairs Ministry announced the relation of H5N1 with chicken losts in the city of Iğdır. Three children from the same family, 14 years-old boy, 15 and 11 years-old sisters, and 12 years-old girl.

H5N1-positive cases were 21 so far and 14 of them were discahrged from the health centers and 3 of them are still at the hospitals. Seventeen of the patients were children.

Bird flu virus has been detected in 13 cities and 24 localities in Turkey so far. More than 1 million poultry have been culled. 2.2 million USD were consumed to finance the culling operations. Nearly 5,300 pathological samples were sent to regional laboratories. 3,303 of them were found clean, and 104 samples were positive with the H5N1.⁶

Treatment opportunities include neuroaminidase inhibitors which reduces the symptoms and the transmissibility of the virus. Oseltamivir is the most popular drug which inhibits influenza virus neuraminidase with the alteration of virus particle aggregation and release.⁷

Second European Conference of the European Scientific Working Group on Influenza had cocluded by a final statement that countries should aim to vaccinate one-third of the population against epidemic influenza by 2010 (Currently this rate is only 17%).⁸

Fifty million people lost during the influenza pandemic in 1918. The bad/good news is the current H5N1 which threatens the Asia as well as the Eastern Europe has kind a similar mutations as in the pandemic.⁸ That is bad since still we have the same problem since 1918, good news since we know the problem. Future will show us the winner of this same battle.

The virus was becoming less dangerous since the lower death rate was seen among people in Turkiye when compared with those in Asia. Early medical treatment, public-education, campaigns, educated news and lectures, vaccines, destruction of infected materials and government-approved precautions lead to fall both in new cases and in the mortality rate from the H5N1 virus.

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