The Clinical Manifestations of Avian Influenza in Egyptian Patients

Protocol of MS Thesis in Tropical Medicine

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Introduction:

Although avian influenza A viruses do not usually infect humans, several instances of human infections and outbreaks of avian influenza have been reported since 1997. Most cases of avian influenza infection in humans are thought to have resulted from contact with infected poultry or contaminated surfaces.

To date, human infections with avian influenza viruses detected since 1997 have not resulted in sustained human-to-human transmission. However, because influenza viruses have the potential to change and gain the ability to spread easily between people, monitoring for human infections and person-to-person transmission is important.

Hong Kong, 1997; avian influenza A (H5N1) infections occurred in both poultry and humans. This was the first time an avian influenza virus had ever been found to transmit directly from birds to humans. During this outbreak, 18 people were hospitalized and six of them died.

Although the exact incubation period for avian influenza in humans isn't clear, illness seems to develop within one to five days of exposure to the virus. Sometimes the only indication of the disease is a relatively mild eye infection (conjunctivitis). But more often, signs and symptoms of

Bird flu resemble those of conventional influenza, including; cough, fever, sore throat and muscle aches. People with the most virulent type of bird flu virus (A) H5N1 may develop life-threatening complications, particularly viral pneumonia and acute respiratory distress, the most common cause of bird flu-related deaths.

Egypt confirmed its first H5N1 outbreak in poultry on 17 February 2006. At 20 March 2006, the Ministry of Health in Egypt has confirmed the country's first case of human infection with the H5N1 avian influenza virus. And at 29 March 2006, the Ministry of Health has confirmed the country's second fatal case of human infection. At 2nd January 2008 the Ministry of Health and Population in Egypt has announced two cases of human infection of H5N1 avian influenza,

At 4th Mar 2008: An Egyptian woman aged 25 has died of bird flu, the 20th death in Egypt from the disease since the deadly virus arrived in the country in early 2006, the Ministry of Health said on Tuesday. The woman, was from Fayoum province southwest of Cairo, and entered hospital on Feb. 27. In a separate statement, the ministry said an 11-year-old boy from the Nile Delta province of Menoufia had tested positive for the virus after entering a local hospital on Feb. 26, by which, the number of human cases reached 45 Since the H5N1 virus was first detected in humans in Egypt in February 2006, 20 of them have died

Aim of the Work

• Is to review the current situation of avian influenza in Egypt.

• Description of clinical picture and laboratory investigations of the human cases admitted to one of the major referral hospitals.

• To collect and to analyze the epidemiological data of reported **cases** in Egypt.

Scheme of work:

• Collection of available data about reported cases of human avian influenza in Egypt,

• The knowledge, attitude and practice of Egyptians towards avian influenza will be studied through prepared questionners answered by a sample of Egyptians.

• Collection of all personal, clinical and laboratory data of all patients admitted before or will be admitted until 31 July 2009.

• All data will be collected in observation sheets and will be statistically analyzed.

المظاهر الإكلينيكية لإنفلونزا الطيور في المرضى المصريين

مشروع رسالة ماجستير في طب المناطق الحارة

مقدم من الطبيب
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كلية الطب
جامعة عين شمس
2008

المظاهر الإكلينيكية لإنفلونزا الطيور في المرضى المصريين

مقدمة:

بالرغم من أن فيروسات أنفلونزا الطيور لا تصيب عادة الأنسان, فقد حدثت عدة إصابات بشرية منذ عام 1997 ويعتقد أن معظم الحالات قد نتجت من التعامل مع الطيور المصابة أو من خلال الأشياء الملوثة بإفرازات الطيور.

حتى الآن لم يثبت انتقال الفيروسات بين البشر ولكن لما عرف من مقدرة فيروسات الأنفلونزا من التحور ومن ثم انتقالها بين البشر فقد لزم رصد الحالات البشرية وتتبعها بدقة.

كانت اصابات هونج كونج أول مثل يرصد لاصابة البشر بانفلونزا الطيور حيث أصيب 18 مات منهم 6.

ربما تراوحت فترة الحضانة بين يوم وخمسة أيام. أحياناً تكون أعراض المرض حمرة بسيطة بالعين ولكن معظم الحالات تشبه الأنفلونزا العادية. ولكن الأصابة بالسلالات الشديدة من الفيروس يمكن أن تؤدي إلى مضاعفات خطيرة مثل الالتهاب الرئوي وضيق التنفس الحاد.

سجلت أول حالة لإصابة الطيور بمصر في 17 فبراير 2006 وفي 20 مارس أكدت وزارة الصحة أول إصابة بشرية وفي 29 مارس سجلت الإصابة الثانية.

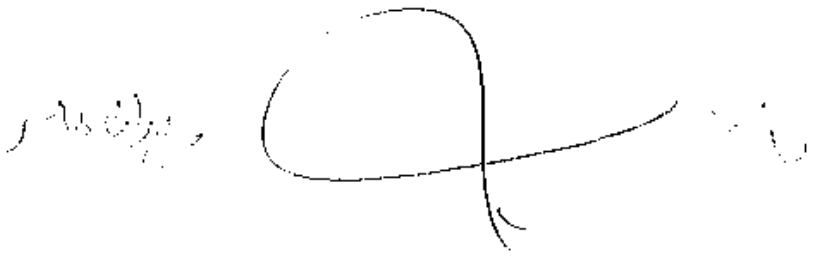
في عام 2008 حدثت أربع حالات أعلن عن أثنتين في الثاني من يناير وحالتين في الرابع من مارس وارتفع عدد الحالات بمصر إلى 45 حالة مات منها عشرون.

الهدف من البحث:

1- مراجعة الوضع الحالي (2008) لإنفلونزا الطيور بمصر.
2- وصف الحالة الإكلينيكية ونتائج الفحوص المعملية للحالات البشرية بأحد المستشفيات التي تحول إليها الحالات بمصر.
3- جمع وتحليل المعلومات عن المرض بمصر.

خطة العمل:

1- جمع المتوفر من معلومات عن الحالات المسجلة بمصر.
2- دراسة معلومات المصريين واتجاهاتهم وممارساتهم فيما يخص المرض من خلال استبيان يقدم لعينة من المصريين.
3- جمع المعلومات السريرية ونتائج الفحوص المعملية للمرضى السابقين وحتى نهاية يوليو 2008.
4- تجمع المعلومات وتحلل إحصائياً تمهيداً لاستخلاص النتائج والتوصيات المناسبة.



Acknowledgement

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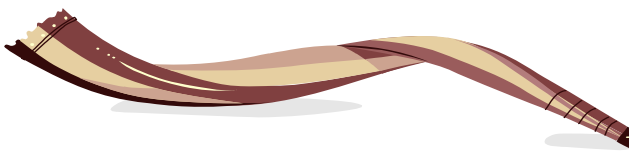
Last but definitely not least, I would like to thank my family for always being there for me and for all the suffering and hardships I made them face from the day I entered this world. To them I owe my life.



Mohamad Fikry Elshora

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List of Abbreviations

ARDS	Acute Respiratory Distress Syndrome.
BSL	Bio-safety level.
CDC	Center for Disease Control and Prevention.
EIA	Enzyme Immunoassay.
FAO	Food and Agricultural Organization of the United Nations.
HI	Hem-agglutination Inhibition.
HA	Hem-agglutinin.
HPAI	High Pathogenicity Avian Influenza.
LPAI	Low Pathogenicity Avian Influenza.
MDCK	Mardin-Darby Canine Kidney.
MOH	Ministry of health.
M1	Matrix Protein 1.
M2	Matrix Protein 2.
NPA	Nasopharyngeal aspirate.
NLQP	National Laboratory for Quality Control and Poultry Production.
NA	Neuraminidase.
NS	Non Structural.
OIE	Office International for Epizooties.
PA	Polymerase Acidic.
PB1	Polymerase Basic 1.
PB1	Polymerase Basic 2.
RT- PCR	Reverse Transcription Polymerase Chain Reaction.
SA	Sialic Acid.
UN	United Nations.

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