

NEWS

Isolation of new flu-virus strain may presage pandemic

The isolation, reported from Hong Kong on Aug 20, of an avian influenza-virus strain from a 3-year-old Chinese boy has alerted public-health officials worldwide to the possibility of a flu pandemic. This is the first time the virus strain involved, H5N1, has been identified in man.

H5N1, which infects chickens and geese, caused an outbreak of influenza in chickens in Hong Kong earlier this year, but the boy, who died in May, and his parents had no known contact with chickens.

"So far, no more H5N1 isolates have been identified in man", says Kennedy Shortridge, professor of

microbiology at the University of Hong Kong. However, WHO is monitoring events closely, through its four influenza-reference centres (London, UK; Atlanta, GA, USA; Melbourne, Australia; and Tokyo, Japan). Experts from Atlanta have joined scientists from the Hong Kong Department of Health in a detailed investigation to determine whether other people in Hong Kong or in other parts of southern China have been infected with the H5N1 strain.

"We are exploring as many avenues as possible", says Shortridge. "Obviously a mass of serological studies has to be done. We don't

know how the bird virus jumped to a human being. Human cells don't have receptors for avian influenza viruses, so we are looking for an intermediate host." Since 1994, when Shortridge isolated avian H1N1 influenza virus from pigs and found evidence of pig-to-pig spread, many virologists have seen the bird-pig-man triangle as a potential source of a viral shift that could start a pandemic of human influenza (see *Lancet* 1997; 349: 36).

"A knowledge of the genetics of this strain—which we are working on now—will give us a better idea of where the virus came from", explains Shortridge. "If it came through an intermediate host, such as the pig, it would have acquired some human influenza genes."

The last flu pandemic occurred in 1968–69, only 11 years after the previous major outbreak. The isolation of H5N1 from a human being could be the first warning that a pandemic is on the way—but only if more cases of H5N1 in people are discovered.

Dorothy Bonn

Education needed to improve vaccination rates

Teaching medical students about the importance of immunisation could reduce death rates from vaccine-preventable diseases including influenza, suggests a study funded by the Centers for Disease Control and Prevention (Atlanta, GA, USA). The CDC has identified health-care providers as one of the weak links in achieving optimum vaccination rates in the USA, where in 1994 only 55% of people aged 65 and over reported receiving influenza vaccines (*JAMA* 1997; 278: 705–11). Richard Zimmerman (University of Pittsburgh School of Medicine, Pittsburgh, PA, USA) and colleagues say that almost half of the 65 000 deaths each year in the USA from influenza, pneumococcal pneumonia, and hepatitis B could be prevented by vaccination.

First case of indigenous malaria reported in Italy for 40 years

After an absence of 40 years from Italy, a case of indigenous malaria has been reported in the formerly endemic region of Maremma in southern Tuscany.

Until a century ago, Grosseto, the capital of this swampy region, was abandoned from June until September as inhabitants fled to nearby hills to escape the ague. So reports in mid-August that a 60-year-old woman—who had not travelled abroad, received blood transfusions, or shared contaminated syringes—had benign tertian

malaria caused some concern.

Mario Toti, the consultant who cared for the patient, confirmed that the disease was "introduced malaria", acquired by mosquito transmission from an imported infection. A girl with unrecognised self-limiting *Plasmodium vivax* malaria, who had come from India in May, was living nearby.

"Residual anophelism" exists in Italy and *Anopheles labranchiae* was identified as the vector in this case. Extensive control procedures—including the drainage of

marshes and the widespread use of insecticides—resulted in the eradication of malaria in Italy in 1970. Although intercontinental travel now results in about 800 cases of malaria a year in Italy, both the anopheline and the infected human population remain well below the "critical densities" required for the sustained transmission of malaria.

Prophylactic measures were taken in Maremma, but, according to Guido Sabatinelli, head of the Malariaology Unit at the Istituto Superiore di Sanità in Rome, this isolated case of locally transmitted malaria does not imply a resurgence of malaria in Italy.

Bruno Simini



The guilty party