A new *Archives of Internal Medicine* report estimating the prevalence of milder forms of bird flu in Vietnam ("Is Exposure to Sick or Dead Poultry Associated with Flulike Illness?" by Thorson, Petzold, Thi Kim Chuc, and Ekdahl in the Jan. 9, 2006 issue) raises several important questions that have not been widely contemplated before.

The investigators (from Sweden's respected Karolinska Institute, and one Vietnamese Ph.D.) evaluated the frequency of flu-like illness in a rural area of Vietnam over a four-month period in 2004, and attempted to correlate the frequency of such illnesses with the patients' exposure to sick or dead birds and poultry. The study -- which assessed over 45,000 people and relied upon the recollections of rural villagers -- found over 8,000 individuals with self-reported flu-like illness -- about 18% of the study population. The researchers not only found a significant correlation between direct contact with sick or dead birds and human illness, they went on to extrapolate that approximately 700 cases of flu-like illness were attributable to contact with sick birds. Their conclusion, based on these data, was that the H5N1 strain of bird flu was much more common, yet much milder, than has been observed over the course of the past year, during which only a few human cases have been diagnosed (about 150), but with an apparent 50% mortality rate.

Are the conclusions of this one study enough to warrant rethinking the current bird-flu paradigm and considering this threat similar to that posed by the similar "Asian Flu," as opposed to the deadly "Spanish Flu" pandemic? (The Asian Flu pandemic occurred in 1957-8, and caused millions of cases but much lower mortality than the global "Spanish flu" of 1918-9, which killed over 20 million.) Unfortunately, no. While, on its surface, the new study seems to point in that direction, a closer analysis of the study reveals several weaknesses, the most important of which is that no blood samples were taken. As a result, no data on antibody status could be collected, nor could there be any confirmation of a specific viral cause of the reported ailments.

Indeed, it is just as likely that the illnesses sustained by the rural Vietnamese were caused by some other virus, not a bird-type flu at all -- or that if their ailments were due to bird contact, that the cause was any number of bird flu variants, rather than the lethal H5N1 strain being studied intensively now. There are many other bird flu strains, some of which have occasionally transmitted to humans but which do not cause severe disease. Due to this lack of serological confirmation, a void at its center, the authors' theory -- that all such illnesses were possibly due to a milder form of the H5N1 type of bird flu -- cannot be substantiated and remains merely an interesting supposition.

The authors themselves note this uncertainty and call for extensive population studies to include blood tests, which would likely reveal the true extent of prior contact with the lethal avian flu strain. Perhaps they are right and the H5N1 strain has disseminated much more widely but with much
less devastating effect than previously thought. Further studies will be needed to get evidence of that hypothesis, though. This study offers only a hint.

Gilbert L. Ross, M.D., is Executive and Medical Director, and Aubrey Stimola is Assistant Director of Public Health, of the American Council on Science and Health (ACSH.org [1], HealthFactsAndFears.com [2]).

Source URL: https://www.acsh.org/news/2006/01/09/new-study-of-bird-flu-raises-important-issues

Links