



徐建国院士在《The Lancet》发表评论文章

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——关闭具有活禽的农贸市场, 预防大城市发生人感染H7N9禽流感

5月10日《The Lancet》在线发表了徐建国院士等撰写的题为“Reducing exposure to avian influenza H7N9”的评论文章, 对我国H7N9禽流感防控策略进行了深入探讨。

截止到2013年5月1日, 我国共报告H7N9禽流感确诊病例127例, 先后有39个城市、10个省(市)出现疫情。携带病毒的禽类是传染源, 出售活禽的农贸市场是人感染H7N9禽流感病毒的主要场所。因此, 控制疫情必须做到2点: 1、临时关闭出售活禽的农贸市场; 2、制止带毒动物贸易和流动, 防止疫区扩大。

H7N9禽流感病毒的潜伏期是7天。如果措施有效, 采取措施7天后, 原则上不应有新的病例发生。上海市4月6日关闭农贸市场。之后报告的27例患者, 有22例是4月6日以前发病的。4月13日后, 没有新的感染发生。杭州市4月15日关闭农贸市场。4月15日以后报告的23例患者, 18例在4月15日以前就发病了。4月22日以后, 没有新发感染。从关闭农贸市场的当日算起, 上海杭州所有新发病例的潜伏期都没有超过7天。也就是说, 这些患者都是在关闭市场之前感染、关闭市场之后发病的。因此, 在流行地区流行期间关闭具有活禽的农贸市场, 是预防人口密集大城市人感染H7N9禽流感病毒的有效措施。可是, 仅仅关闭农贸市场, 并不能阻止疫区扩散。只有迅速发现携带病毒的活禽, 严格控制携带病毒的活禽运输和贸易, 才能够有效控制疫情。

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Reducing exposure to avian influenza H7N9

Avian influenza H7N9 infections have extended to 39 cities in 10 provinces, infected 127 patients and killed 26 people in China as of May 1, 2013.¹ This outbreak is very difficult to control, and covers a greater geographical area than thought.¹ Stopping infection of people in China is a huge challenge.

Two strategies could prevent new human infections: suspending farmers markets with live birds, and stopping the transport for trading of live birds carrying the virus.

Of 77 patients with data available,¹ 77% had a history of occupational or wet market exposure to poultry,^{1,4} and genomic analyses of the virus clearly suggest that it is from avian origin.¹

Farmers markets with live poultry in China are a favourable micro-environment for virus transmission from animals to humans. Close contact and exposure to animal secretions and faeces could also facilitate the transmission. Butchering of poultry in an open space could expose workers and consumers to infected material.⁶

Following our proposal to suspend farmers markets with live birds, on April 5, Shanghai authorities suspended farmers markets with living poultry to prevent new human infections. This goal has been achieved. Of the 27 cases reported after the ban, 22 were already affected, and given the 7-day incubation period, five were most probably infected before the ban. No new infection has been reported so far (appendix).

Hangzhou authorities suspended farmers markets with live birds on April 15. Of the 23 patients diagnosed and reported after the suspension, 18 were ill before the suspension, and the five other cases fall within the 7-day incubation time (appendix). If the suspension could have happened earlier, as in Shanghai, theoretically seven cases could have been prevented.

Zhejiang provincial authorities suspended all 1300 markets with live birds on April 22. Nanjing municipal government of Jiangsu reported 11 cases. The municipal government suspended farmers markets on April 8 (appendix).

Looking at the number and geographical distribution of the cases, suspending farmers markets with live birds is not enough to control the disease. This suspension can prevent new human infections in large and dense cities, like Shanghai. But, the number of infected cities has now increased, and each city has only a few patients. This is alarming. Therefore, we must also try to reduce the number of infected cities to limit the geographical spread. This can only be achieved by stopping the transport of live birds carrying the virus.

We declare that we have no conflicts of interest.

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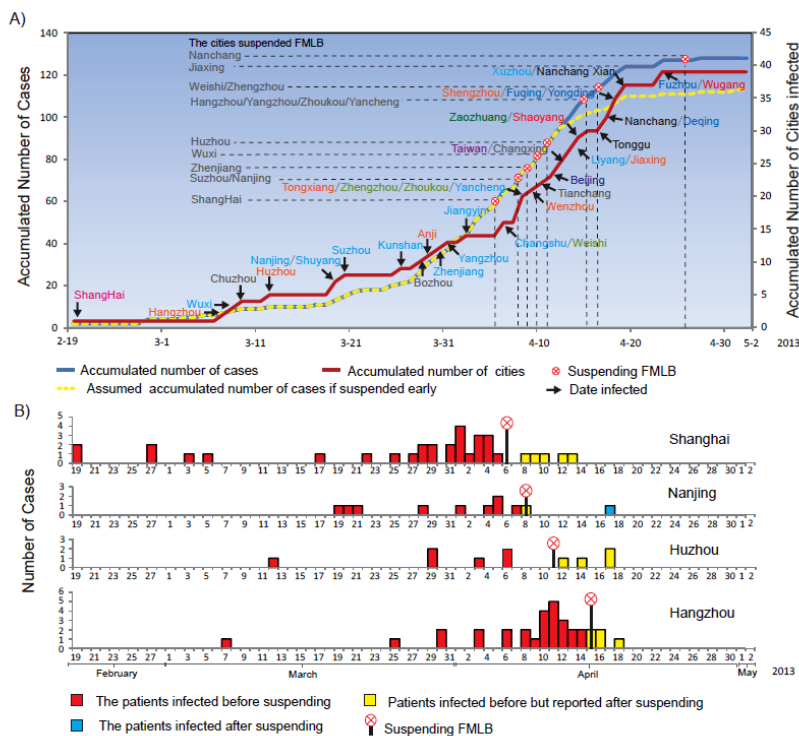
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See Online for appendix

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