Epidemiology of the influenza A virus H5N1 subtype and memory of immunity to the H2N2 subtype

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Epidemiology of the Influenza A Virus H5N1 Subtype and Memory of Immunity to the H2N2 Subtype

In their recent paper, Peter Palese and Taia T. Wang proposed a hypothesis to explain how an older circulating subtype of influenza A virus is replaced with a novel subtype (1). They and others also published experimental evidence supporting their hypothesis on the extinction of seasonal H1N1 viruses by the 2009 pandemic H1N1 viruses (2). Although they discussed only the disappearance of seasonal H1N1 and H2N2 subtypes, we think that the same mechanism may be working against the currently circulating H5N1 subtype.

The World Health Organization had reported a skewed age distribution of confirmed H5N1 cases in 2006 (3), and Matthew Smallman-Raynor and Andrew D. Cliff suggested the possibility that persons born before 1969 have immunity to the H5N1 subtype, which may be associated with geographically widespread influenza A events before the late 1960s (7) and when the HA2 domains are compared (8). Therefore, we speculate that natural infection or vaccination in the past may have rendered the population born before 1968 resistant to viruses of the H5N1 subtype because of these stalk-specific antibodies.

REFERENCES

Letter to the Editor

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