

Abstract

Early this year 24 poultry farms with more than three hundred thousand birds were stamped out due to low pathogenic avian influenza virus H5N2 infection in this country. Moreover, more than hundred million of poultry died or culled due to high pathogenic AIV, H5N1 infection in southeast Asia countries . The virus also killed more than 20 human being in Thailand and Vietnam. High concentration of poultry and swine raising in Taiwan might increase the chance of avian influenza virus and swine influenza virus to reassort in pigs, and then increase the chance to create a new flu virus for human pandemic outbreak. This project undertake surveillance on the frequency of avian influenza virus infection among our pigs. A total of 9860 serum samples were collected from 1972 pig farms which located in 8 counties where H5N2-infected poultry farm being culled. All the sera were subjected to agar gel precipitation (AGP) tests, the positive sera then subjected to hemagglutination inhibition (HI) tests by using avian influenza virus subtypes H5 , H7,H1 and H3, and swine influenza virus subtypes H1 and H3. The serum positive rate in AGP tests was 37.7%(3724/9883), which the pig farm positive rate was 62.6%(1235/1974). All sera was negative in HI tests against AIV subtype H5 and H7, very low positive rate against AIV H1 (1.9%,22/1146) and H3 (1.0%,11/1146), which high positive rate against SIV H3 (61.0%,699/1146) and SIV H1 (10.5%,120/1146). Eight hundred and eight one nasal swab were collected from slaughter houses and subjected to RT-PCR and SPF embryonated eggs inoculation. Sever swab sample were positive in RT-PCR whereas only two virus were isolated, one H1N2 and the other H3N1.

Keywords : avian influenza ; swine influenza ; human influenza ; zoonotic diseases ; H5 ; H7