

Maternal Antibody Titer Against Avian Influenza Transferred from Hens to The Eggs and Ducklings

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Abstract	<p>Abstract. This research aimed to evaluate the effectiveness of H5N1 Avian Influenza vaccination in different duck breeds and to assess the magnitude of maternal antibody titer transferred from the vaccinated hen to the eggs and off ducklings as a protector agent against H5N1. Experimental research was conducted on 16 male and 48 female mallards and 16 male and 48 female Muscovy ducks aged 16 week old. The study showed that the vaccination was 83.33 % successful in Muscovy ducks and 100% in in mallards. Result of variance analysis demonstrated that breed and sex did not significantly affected AI antibody titer. AI maternal antibody transferred from Muscovy hens to egg yolks and to off springs was 66.37% and 39.51%, respectively. Female Mallards transferred higher antibody to egg yolks than to off springs (96.40% versus 63.18%, respectively. Antibody titer against AI vaccination was determined through ELISA. This study concluded that AI H5N1 vaccination increased antibody titer in ducks which is transferrable to the eggs produced and ducklings.</p> <p>Key words: Vaccination, H5N1 virus, antibody titer, egg yolk, ducklings</p> <p>Abstrak. Penelitian ini bertujuan untuk mengevaluasi efektifitas vaksinasi avian influenza H5N1 yang dilakukan pada bangsa itik yang berbeda. Penelitian juga bertujuan untuk mengetahui besarnya transfer maternal titer antibody dari induk yang divaksinasi ke telur dan anak itik yang dihasilkan untuk perlindungan terhadap infeksi virus H5N1.</p> <p>Penelitian dilakukan secara eksperimental dengan materi menggunakan itik yang terdiri dari itik Tegal jantan 16 ekor dan betina 48 ekor serta entok jantan 16 ekor dan betina 48 ekor umur 16 minggu.</p> <p>Hasil vaksinasi menunjukkan keberhasilan vaksinasi sebesar 83.33% pada entok dan pada itik 100%. Hasil analisis variansi menunjukkan bangsa itik dan jenis kelamin tidak berpengaruh nyata ($P < 0.05$) terhadap titer antibodi flu burung (H5N1).</p> <p>Besarnya transfer maternal antibodi flu burung dari induk entok ke kuning telur sebesar 66,37%, sedangkan pada anaknya 39,51%. Induk itik memberikan antibodi lebih tinggi pada kuning telurnya yaitu sebesar 96,40% dan pada anaknya 63,18%. Kesimpulan dari penelitian ini adalah vaksinasi flu burung H5N1 meningkatkan titer antibodi pada itik yang dapat ditransfer pada telur dan keturunannya.</p> <p>Kata kunci: Vaksinasi, virus H5N1, titer antibodi, kuning telur, anak itik</p>
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