



**Cairo University**  
**Faculty of Veterinary Medicine**  
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## **Trials for production and evaluation of a combined vaccine against fowl cholera and avian influenza**

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*Trials for production and evaluation of a combined vaccine against Fowl Cholera and Avian Influenza*

### **ABSTRACT**

The study objective was to prepare 2 vaccines of fowl cholera 1<sup>st</sup> one is bivalent inactivated Fowl Cholera (*P.multocida* (5:A, D2)) vaccine with Montanide ISA70 oil adjuvant (1). 2<sup>nd</sup> one bivalent inactivated Fowl Cholera (*P.multocida* (5: a & D2) vaccine with white oil adjuvant (2). Each vaccine (1) & (2) was vaccinated in a group of chickens (4 weeks old) with dose 0.5 ml S/C, booster dose was given after 1st dose with 4 weeks (chicken 8 weeks old) in the 2 groups. Regular withdrawal of blood samples every week. Applying of PHA test on serum collected from 2 groups chicken it was clear that AB titer from vaccine (1) is higher than AB titer in group (2). Applying challenge test on the 2 groups of vaccinated chickens in vaccine (1) protection % for 5: a is 95% & D2 is 90%, while for vaccine (2) 5: a is 90% & D2 is 85%.

Depending on these results from the previous experiments, 2 vaccinal batches were prepared using Montanide ISA 70 oil adjuvant in the 2 vaccine. 1<sup>st</sup> one (Bivalent inactivated AI vaccine) (3). 2<sup>nd</sup> one (inactivated combined (AI + FC) vaccine (4). each batch was vaccinated in a group of chicken 4 weeks old, 0.5ml S/C one single dose (no booster dose). HI test was applied on serum collected from vaccinated chickens regularly each week. The result showed AB titer for S1 strain is higher than AB titer in S2 Strain in both vaccines. By applying challenge test using local virulent HPAI (H5N1) challenge virus, the protection % in group (3) 93.3% & in group (4) 86.6%

**Key words:** Fowl cholera, avian influenza, chickens, vaccination, combined vaccine.





## *Dedication*

*I dedicate this to*

*My mother*

*My father*

*My brothers*

*My husband*

*& my children Moustafa, Hala & yousef*



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*I am greatly indebted in all my work and success to our merciful "Allah".*

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