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POSTER

Experimental culturing of chick embryo in shell-less culture system – the first research in Vietnam

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Abstract

Chick embryo is an ideal model with numerous applications in biomedical research. Among a variety of methods have been carried out for culturing chick embryos, shell-less culture system has a large number of advantages on accessibility, observation and manipulation. In this study, chick embryos were transferred to the shell-less culture system and the development of the chick embryos were assessed. Correlation between the diameter of sinus terminalis on the surface of yolk sac and viability of the embryos would be evaluated. In addition, calcium lactate was added to the culture system in order to find out the optimal amount. After the experiments, results showed that there was no difference between embryos in shell-less culture system and traditional method during incubation period. Secondly, the proportion of live chick embryos until embryonic day 17 reached the highest rate at 87,5% when the diameter of sinus terminalis was between 16 and 21 mm. At last, there was no significant difference between the group with 250 mg calcium lactate supplemented as compared to no supplemented group. Calcium lactate had a lethal effect on chick embryos when the supplemented content was 550 mg. In conclusion, the shell-less culture system could be able to allow the survival of chick embryos until day 21, with high rate in day 17. Besides, this has been the very first time the shell-less culture system was performed in Vietnam.

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References