Koi herpes virus Infected to Koi Fish (*Cyprinus carpio koi*) Modelling within Extremely Temperature Changes

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Abstract

Background: *Koi herpes virus* (KHV) cause of KHV Disease (KHVD). The viral attack Gold fish and Koi fish. In Indonesia, the disease is a frightening specter for fish farmers. This disease almost every year outbreaks with a mortality rate of 80-95%. In this study, we describe *Koi herpes virus* infected to Koi fish modelling within extremely temperature changes.

Methods: There were 6 treatment groups and two control groups. Each group includes 10 of Koi fish with free-pathogens. Intra peritoneally, the fish injected within 0,1 ml of 10% virus suspense dosage. Detected molecular viral by nested polymerase chain reaction (n-PCR) test with PCR-KIT IQ2000TM.

Results: During 2 weeks incubate period, several fish in treatment groups showed clinical manifestation with necrotic of skins, fins and gills. Then, confirm with molecular viral testing but only 5/10, 7/10, 5/10, 8/10 sampling were positive of KHV.

Conclusion: Extremely temperature changes would cause fish to escape to warmer temperatures at the bottom of the aquarium. Furthermore, dirt deposits would rise and water pollutions were formed and then the fish in aquarium would be disturbed and stress. In such conditions, the fish's immune system decreases so that the fish were easily infected by KHV.

Key word*: Koi (Cyprinus carpio koi), Koi herpes virus (KHV), Koi Herpes Virus Disease (KHVD).*