

Eliminasi Endosimbion Wolbachia sp. pada Nyamuk Aedes albopictus dengan Antibiotik Tetrasiklin

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Abstract	<p>Dengue Hemorrhagic Fever (DHF) is a disease caused by the dengue virus which is transmitted through the bite of the Aedes mosquito. Aedes aegypti, which is known as the primary vector of dengue virus, is naturally not infected by Wolbachia sp. endosymbiont, while Ae. albopictus which is a secondary vector naturally infected with Wolbachia sp. The Wolbachia sp. known to inhibit the transmission of Dengue virus, to study the mechanism, it is necessary to eliminate Wolbachia sp. from Ae. albopictus, then infects the Ae. albopictus with the Dengue virus. The aim of the study was to determine the ability of tetracycline antibiotics to eliminate Wolbachia sp. from the Ae. albopictus mosquito. Ae. albopictus eggs was obtained in the Ciamis area by survey method using ovitrap which was installed outside the house. The Ae. albopictus eggs are then incubated in the laboratory and reared until they become adult mosquitoes. Mosquitoes were treated with sugar feeding which had been given tetracycline 0.25mg/ml every two days alternated with blood feed. Detection of the presence of Wolbachia sp. on mosquitoes carried out in first to third generations by the polymerase chain reaction (PCR) method using Wsp-specific primers. The results showed that the first to third generation mosquitoes were still infected with Wolbachia sp. This shows that the dose of tetracycline antibiotics used has not been able to eliminate Wolbachia sp. from the Ae. albopictus mosquito.</p>
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