Loranthus Extract to Inhibit Malaria

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As a tropical country, Indonesia is the hotbed for the breeding of mosquitoes. Around 3000 species in the world, 450 can be found in Indonesia, including anopheles mosquito that are the malaria vector. This explains Indonesia has the highest prevalence of malaria with over 400 thousands cases per year.

Efforts are made to prevent malaria complications but these have caused side-effects such as bleeding due to anticoagulant substance in heparin, or Lomodex that cause anaphylactic reactions. The increasing plasmodium resistant to antimalaria drugs adds to the problem.

“Antimalaria drugs are usually prescribed for this, but they cause resistance while the malaria vaccines that can protect the body from infection and complications have not yet been found,” said Zulfa Faiqoh, student of Faculty of Medicine UGM, on Tuesday (24/9).

Then, with his colleaguses, Danang Setia Budi, P. Panja P., A.A. Ngurah Nata Baskara, and Wahyu Nitari, he was innovating the antimalaria drug using herbs, mangoe Loranthus (Dendrophthoe pentandra). The research gave them a silver medal in the National Student Week in Universitas Mataram in September.

Zulfa said the Loranthus has flavonoid content used as anticancer, antioxidant, antimicrobes and antimalaria. “Traditionally, Loranthus, a parasitic plant, has been used as a drug for coughs, cancer and pain killer.”

Zulfa and friends did in vivo examination through antiplasmodium testing on Plasmodium berghei infected on mouse. Ethanol extract of the Loranthus is given orally to the mouse. To get this extract, the Loranthus is cut into pieces and dried into *simplisia* powder. This is then extracted for 24 hours using ethanol 70 percent. The result is filtered and evaporated using an evaporator to get thick extract, and later evaporated to get dry extract.

Testing is done on 25 mice divided into five groups. They are given testing material in concentrate of 25mg/kgBB, 50mg/kgBB, 100mg/kgBB and 200 mg/kgBB for four days.

“On the fifth day, blood is taken from each mouse to get the parasitemia percentage, showing. that the dosage of 146,2 mg/kgBB can inhibit by 50% of the Plasmodium berghei,” said

Wahyu said that the conclusion of the test was that mangoe Loranthus has the in vivo antiplasmodium activity which is good for Plasmodium berghei and has the potential as antimalaria drugs. “Further examinations, however, are needed as we have not conducted toxicity testing, etc,” he concluded.

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