

Efektifitas Tanah Liat Kutai dalam Reduksi Filaria Larva *Strongyloides stercoralis*

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Abstrak

Hasil studi terbaru pada rural area Kutai Kertanegara, Kalimantan Timur masih menunjukkan tingginya tingkat risiko penyebaran infeksi *Strongyloides stercoralis* hal ini dimungkinkan potensi reinfeksi dari penetrasi filarial *Strongyloides stercoralis* di lingkungan sekitar pemukiman maupun dari area deforestasi hutan tropis Kalimantan yang disebabkan kegiatan pertambangan batubara dan perkebunan kelapa sawit. Tingginya kandungan clay pada tanah di Kutai (59%) berpotensi bagi reduksi filaria *Strongyloides stercoralis*. Penelitian ini bertujuan mengetahui tingkat reduksi dari tanah liat Kutai terhadap filarial larva *Strongyloides stercoralis* berdasarkan dosis, waktu dan survival larvae. Diagnosa yang digunakan dalam penemuan kasus infeksi *Strongyloides stercoralis* Kato Katz technique dan Agar Plate Culture/APC pada 118 sample komunitas, dilanjutkan dengan perlakuan eksperimen 7 formula pemberian dosis tanah liat pada uji percobaan dilaboratorium. Hasil penemuan kasus infeksi *Strongyloides stercoralis* di desa sebuntal Kecamatan Marangkayu sebesar 14 kasus/11,9% Tanah liat kutai secara efektif dapat mematikan filaria larva parasit, untuk *Strongyloides stercoralis* dalam durasi < 1 menit pada formula 10mg(100%) tanah liat Kutai. Pemanfaatan tanah liat kutai dalam inaktivasi filaria *Strongyloides stercoralis* dapat dikembangkan dalam desain treatment pada media tanah basah/wet soil yang terkontaminasi filaria larva maupun pada pengolahan limbah cair.

Kata Kunci: Tanah Liat Kutai, Reduksi, *Strongyloides stercoralis*

Effectiveness of Clay Kutai in *Filaria Strongyloides stercoralis* Reduction

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Abstract

The current study in the rural area of Kutai Kertanegara, East Kalimantan, Indonesia showed still high risk of *Strongyloides stercoralis* infection. The condition due to potential reinfected by filarial *Strongyloides stercoralis* in the environment from filarial contaminants surrounding households were closed with field rice and surrounding rubber and palm plantation. And then treatment strategy for reducing the filarial of *Strongyloides stercoralis* is very important by using clay Kutai. The high clay content in the soil in Kutai (59%) is potential for filaria *Strongyloides stercoralis* reduction. The purpose of this study saw the filarial larva of *Strongyloides stercoralis* reduction by clay Kutai with basic of study related concentration, duration of contact, and survival of the larva. The diagnosis that was used for the founding of *Strongyloides stercoralis* was the Kato Katz technique dan Agar Plate Culture/APC on 118 samples from the community surrounding palm and rubber plantations. In the experimental study 7 formula of clay Kutai which had used in the laboratory study. The result showed hookworm infection found in Sebuntal Village was 14(11,9%) . The experiment showed that clay Kutai has high effectiveness for inactivation of the filaria larva of *Strongyloides stercoralis* infection. The Clay formula with 10 mg(100%) could be killed the filaria larva of *Strongyloides stercoralis* < 1 minute reaction. Using clay Kutai has high effectiveness for inactivation of filaria larvae *Strongyloides stercoralis* infection that could be improved in practice wastewater treatment and the granulate of clay Kutai should be used to spread on wet soil that is contaminated with filaria larvae.

Keywords: Clay Kutai, Reduction, *Strongyloides stercoralis*



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