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The Combination of Curcuma Extract and IgG Colostrum on Strongyloides Infection in CD1 Mice

Authors : Laurentius J. M. Rumokoy, Jimmy Posangi, Wisje Lusia Toar, Julio Lopez Aban

Abstract : The threat of pathogen infection agents to the neonates is a major health problem to the new born life livestock. Neonate losses became an important case in the world as well as in Indonesia. This condition can be triggered by an infection with nematode in conjunction with a failure of immunoglobulin passive transfer. The study was conducted to evaluate the role of the curcuma combined with IgG colostrum on the development of parasites in the gut of CD1 mice. Animal experiments were divided in four groups (G) based on the treatment: G1 (infection only); G2 (curcuma+infection), G3 (IgG + infection) and G4 (curcuma+IgG+infection). The parameters measured were EPG (eggs per gram) and female in the intestine. The results obtained showed that the treatment has no a significant influence on the number of eggs per gram of feces in the group infected compared to the control group without receiving IgG nor curcuma. However, the EGP response tended to decrease at day 6 in G3 and G4 with a minimum number at zero eggs. This performant showed that the immunoglobulin-G and curcuma substances could slightly decreased the number of eggs in animal infected with Strongyloides. The results obtained showed also that the treatment has no significant difference ($P > 0.05$) on female larva in the gut of MCD1 experimental. In other side, we found that the best performance to inhibit the female quantity in the gut was the treatment with IgG and infection of parasite in G3. In this treatment, the minimum number was five female only in the gut. The results described IgG response was better than the curcuma single use in reducing the female parasite in the gut. This positive response of IgG compared to other controls group was associated with the function of colostrum antibodies.

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