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EFFECT OF RED YEAST RICE (Monascus Purpureus) EXTRACT TO THE TROMBOPOIETIN LEVEL IN DENGUE INFECTED PATIENTS

Abstract

Thrombocytopenia is the key component and important parameter in dengue infection from the potency of bleeding and life-threatening condition. Angkak (red yeast rice) a fermented product of rice and red yeast (Monascus purpureus), has been used in Indonesia to increase platelet count in dengue infection. Pre-clinical research has shown that Monascus purpureus extract can increase platelet count significantly. However the mechanism has not been understood clearly. It has been suggested that the mechanisms are due to anti-inflammatory effect or the stimulation of thrombopoiesis.

Research design used single blind randomized controlled trial. The subjects of this research were patients with dengue infection, hospitalized in Tropical-Infectious Disease Ward, RSUD Dr. Soetomo Surabaya. The total samples were 30 patients who divided into trial group (n=15) and control group (n=15). Trial group received standard therapy for dengue infection and Monascus purpureus extract capsule 3 times 1 capsule daily for 48 hour. Control group received standard therapy for dengue infection. TPO levels was measured before and 48 hour after treatment. The comparative analysis on both groups shows that between 15 patients in trial group and 15 patients in control group, there are decrease of TPO level (median value) from 90 pg/mL to 26.6 pg/mL, and from 130 pg/mL to 66.8 pg/mL respectively. Trial group has greater decrease of TPO level (63.4 pg/ml) than control group (63.2 pg/ml) but statistically not significant (p = 0.916).

Keyword : Monascus, purpureus, Thrombopoietin, Dengue, Infection,

Daftar Pustaka: