LEUCOCYTE COUNT REDUCTION AS A PREDICTOR FOR BETTER CLINICAL OUTCOME IN HEMORRHAGIC STROKE PATIENTS DURING HOSPITALIZATION IN SANGLAH HOSPITAL DENPASAR

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ABSTRACT

Background: The prognosis of hemorrhagic stroke patients is associated with many factors, leucocyte count is one of them. Many studies indicated that elevated leucocyte count is a predictor for bad clinical outcome and death in patients with hemorrhagic stroke, however, there is remain unclear the role of leucocyte reduction in patients with hemorrhagic stroke.

Objective: to know whether leucocyte reduction after leucocytosis could be a predictor for better clinical outcome of patients with hemorrhagic stroke.

Material and Methods: This is a prospective cohort study. Subjects were hemorrhagic stroke patients who were arrival time ≤24 hours onset with leucocytosis admitted in Sanglah hospital Denpasar. Group with leucocyte count reduction were compared with group leucocyte count elevation or without changing. Clinical outcome were measured with NIHSS score changing at day 7.

Results: A total of 44 subjects were recruited, 19 of them had better NIHSS score. Leucocyte count reduction was significantly associated with better clinical outcome (RR=5.33; CI 95%: 1.81-15.74; p<0.01). Leucocyte count reduction was the only independent variable associated with the better NIHSS score.

Conclusion: In Hemorrhagic stroke patients with leucocytosis, leucocyte count reduction could be a predictor for better clinical outcome during hospitalization measured with NIHSS.

Keywords: hemorrhagic stroke, leucocyte count, NIHSS, clinical outcome