

ABSTRACT

Association Between Clinical and Laboratory Findings in Acute Lymphoblastic Leukemia Patient with Outcome of Induction Chemotherapy in Dr Soetomo General Hospital

Tsana Nadhira Susanto

Background: Acute lymphoblastic leukemia is a common malignancy that occurs mostly in children with various manifestations of symptoms. Acute lymphoblastic leukemia is diagnosed when $\geq 25\%$ lymphoblast were present in the bone marrow aspirate. Treatment that can potentially work to eradicate malignancy is by chemotherapy which consists of four phase including induction, consolidation, maintenance, and CNS adjuvant therapy. But the successful outcome depends on many factors, one of which is whether the patient have or have not reach remission after chemotherapy.

Objective: To analyze the association between clinical and laboratory findings as the parameter of outcomes in acute lymphoblastic leukemia patients after induction of chemotherapy.

Metode: A cross sectional study of observational analysis with the total sample of 77 child that were diagnosed with acute lymphoblastic leukemia. This experiment used secondary data of medical record in Pediatric Hematology of Dr Soetomo general hospital during 2014-2016.

Result: The average age at diagnosis was $5,35 \pm 2,9$ with males predominant (54,5%). The remission induction rate was 85,7% with complete remission, 10,4% with partial remission, and 3,9% with remission failure. The result of analysis of regression logistic multinomial was no significant result between laboratory or clinical findings with outcomes of induction chemotherapy in acute lymphoblastic leukemia patients (Anemia $p = 0,559$, Thrombocytopenia $p = 0,232$, Leukocytosis $p = 0,211$, Leukopenia $p = 0,228$, Lymphocytosis $p = 0,599$, Hepatomegaly $p = 0,127$, Splenomegaly $p = 0,081$, Lymphadenopathy $p = 0,228$, Meningeal Syndrome $p = 0,757$, and Bleeding $p = 0,959$.)

Conclusion: There is no parameter found whether laboratory or clinical findings that significantly associated with outcomes of induction chemotherapy in acute lymphoblastic leukemia.

Keywords: Acute lymphoblastic leukemia, Child, Outcome of Chemotherapy, Induction Chemotherapy