

## Abstract

### Survival Rate of Childhood Acute Myeloid Leukemia in Siriraj Hospital

Author: Chisa Pithaksalee

**Introduction:** Treatment outcome of acute myeloid leukemia (AML) is still unsatisfactory. Previous report showed that 5-year overall survival rate (OS) of AML in Thai children during 2003-2005 was only 35.1%. However, there was no information regarding the detail of treatment in each institution.

**Objective:** To study survival rate of childhood AML in Siriraj hospital.

**Methods:** A retrospective study of newly diagnosed AML in children under 15 year-old who were treated at Siriraj hospital during January 1, 2000 to December 31, 2013. The demographic data and treatment outcome were collected and analyzed.

**Results:** Seventy-three patients were enrolled to the study. The median age at diagnosis was 5.25 years. The most common AML subtype according to the French–American–British (FAB) classification system was M2 (37%). Most patients (42.5%) were treated with a Berlin-Frankfurt-Münster (BFM) based regimen, protocol ANLL00A, followed with a Children Oncology Group based regimen, AML0308 (26%). After receiving induction chemotherapy, 91.8% of patients achieved remission. However, 29 patients (39.7%) experienced disease relapse later. The median time to relapse was 1.18 years after remission. Five-year OS were 46.8% (95%CI 6.87- 10.38) and five-year event free survival were 44.1% (95%CI 6.25- 9.81). The survival rates among each treatment protocols were not differ statistically. The major cause of death (65.8%) was treatment-related infection.

**Conclusion:** The survival rate of AML in Siriraj Hospital is better than previous Thai's study. However due to the high relapsed rate and treatment-related mortality, a more intensive protocol along with a better supportive care might improve survival of AML in Thai children.

**Keywords:** Acute myeloid leukemia, Treatment outcome, Thailand