



OUTCOMES OF ACUTE MYELOID LEUKAEMIA AMONG THE ELDERLY POPULATION: A TEN-YEAR RETROSPECTIVE ANALYSIS

KY Yong et al

Hematology department, Ampang Hospital, Selangor, Malaysia.



Background

Elderly acute myeloid leukaemia (AML) is an aggressive blood malignancy in which there is abnormal proliferation of clonal myeloid precursors affecting population older than 60 years old. Several unmet needs exist in the management of elderly AML.

Materials and Methods

We conducted a cross sectional study of all adult patients diagnosed with AML in Hospital Ampang with age 60 years old and above from 2007 till 2017.

Results

230 elderly patients with AML were included in this study. The median age of presentation was 64 years old (60 to 94). They were equally distributed between both genders. Majority of them were Chinese (46%) followed by Malay (42.6%) and Indian (10.4%). 40.4% (93), 30.4% (70), 10.4% (24) and 2.6% (6) have underlying hypertension, diabetes mellitus, cardiovascular diseases and cerebrovascular accident respectively. Median presenting white cell count, haemoglobin and platelet were $57.8 \times 10^9/L$, $78g/L$ and $84.2 \times 10^9/L$ respectively. 109 of them received intensive chemotherapy in which 91 received standard dose cytarabine plus mitoxantrone (MA), followed by 14 received standard dose of cytarabine plus daunorubicin (DA) and remaining 4 hypomethylating agents (HMA).

In regards to the intensive arm group, 87.2% (n=95) of the patients are <70 years old and 12.8% (n=14) are ≥ 70 years old. 6 of them received hemopoietic stem cell transplant (HSCT) in which 5 received allogenic HSCT and 1 received autologous HSCT. The remaining 121 received palliative measures including blood transfusion, oral cytoreductive agent and palliative cares. Median follow-up or survival were 4 months ranging from 0.03 to 132 months. Overall survival (OS) at 3 months, 6 months, 12 months and 18 months were 63.9%, 40.9%, 22.6% and 18.7% respectively. Probability of survival at 18 months for age <70 years old and ≥ 70 years old was 25.4% and 8% respectively with better OS in the intensive treatment group in both age category ($p < 0.0001$). Palliative treatment arm, poor cytogenetic profile, albumin level $< 30g/L$ and peripheral blast level $> 80\%$ were associated with worse prognosis in OS in elderly AML.

Conclusion: Age is a poor predictor and comprehensive geriatric assessment is crucial in determining the optimal treatment plans for elderly AML. Better understanding of disease's biology and advances in targeted therapy might guide the clinician to have a better optimal therapeutic approaches in the future. However, treatment strategy for AML among the elderly should be individualised.